

General Instructions

- (i) This booklet contains 150 questions, each provided with a complete, step-by-step solution.
- (ii) It comprises 150 single-correct multiple-choice questions.
- (iii) Attempt each question on your own before reviewing the given solution.

. “Swayamsidha” is a scheme launched by the Government of India to help

- (A) School children only
- (B) Health workers only
- (C) Senior citizens without any regular income
- (D) Women only

Correct Answer: (D) Women only

SOLUTION:

Government welfare schemes are often named to hint at their target group. "Swayamsidha" roughly means "self-accomplished", which is a strong clue here.

1. It is not aimed at school children, since it has no education-delivery component.
2. It is not a health-worker scheme, since it does not train or employ health staff.
3. It is not a senior-citizen income scheme, since those come under separate old-age pension programmes.

4. It was in fact launched by the Ministry of Women and Child Development in 2001 to organise women into self-help groups (SHGs), giving them access to credit, skill training, and awareness programmes.

Let's summarize: the name itself signals women's self-reliance, and the ministry that runs it confirms the target group.

So the correct choice is women only, option D.

Quick Tip: Think about which ministry runs Swayamsidha and what “self-accomplished” suggests about its target group.

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. What is ‘Share swap’?

A. A business takeover in which the acquiring company uses its own stock to pay for the acquired company.

B. When a company uses its own shares to get a short-term loan for working capital requirements.

C. When companies are required to float a new issue to earn capital for their expansion programmes, and each shareholder gets some additional preferential shares. This process is known as Share Swap.

(A) Only A

(B) Only A and B

(C) Only C

(D) None of the above

Correct Answer: (A) Only A

SOLUTION:

The fastest way to answer this is to check each statement against the plain meaning of the word "swap": exchanging one thing for another, here shares for ownership of a company.

1. **Statement A:** The acquirer hands over its own shares instead of cash to buy the target company. Shares are being exchanged for the company, which is exactly a swap, so this is correct.
2. **Statement B:** Using shares as collateral for a short-term loan is a lending transaction, not an exchange of shares for a company, so this is wrong.
3. **Statement C:** A fresh issue giving shareholders extra preferential shares is a capital-raising or bonus action, not a takeover payment method, so this is wrong.

Only statement A survives this check.

So the correct answer is option A, only A.

Quick Tip: A “swap” always means exchanging one thing for another; ask what is being exchanged for what in each statement.

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. Regarding “carbon credits”, which of the following statements is not correct?

- (A) The carbon credits system was ratified in conjunction with the Kyoto Protocol
- (B) Carbon credits are awarded to those countries or groups who have reduced the green house gases below their emission quota
- (C) The goal of the carbon credit system is to reduce carbon dioxide emission
- (D) Carbon credits are traded at a price fixed from time to time by the United Environment Programme

Correct Answer: (D) Carbon credits are traded at a price fixed from time to time by the United Environment Programme

SOLUTION:

This question asks us to find the one false statement, so we check each option against how the carbon credit market actually works.

1. **Ratified with Kyoto Protocol:** True. The 1997 Kyoto Protocol set up the framework that turned emission cuts into tradeable credits.
2. **Awarded for cutting emissions below quota:** True. Countries or firms that pollute less than their cap can sell the unused allowance as credits.
3. **Goal is to reduce carbon dioxide emission:** True. Putting a price on emissions is meant to push polluters toward cleaner processes.
4. **Price fixed by the United Nations Environment Programme:** False. Carbon credits trade on open carbon markets and exchanges, so prices move with demand and supply, not by a UN body setting a rate.

Only the last statement fails the check.

So the correct answer is option D.

Quick Tip: Ask whether carbon credit prices are set by a market or fixed by an authority.

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. Both Foreign Direct Investment (FDI) and Foreign Institutional Investor (FII) investment are related to investment in a country. Which one of the following statements best represents an important difference between the two?

- (A) FII helps bring better management skills and technology while FDI only brings capital
- (B) FII helps in increasing capital availability in general, while FDI only targets specific sectors
- (C) FDI flows only into secondary markets while FII targets primary markets
- (D) FII is considered to be more stable than FDI

Correct Answer: (B) FII helps in increasing capital availability in general, while FDI only targets specific sectors

SOLUTION:

This question compares two ways foreign money enters a country, so it helps to first fix the plain difference: FDI buys into a business directly, FII buys shares on the stock market.

1. **Option A:** Claims FII brings management skill and technology. In reality that role belongs to FDI, which takes an operating stake

in the company, so this option swaps the two around and is wrong.

2. **Option B:** FII money is spread across the market and adds to overall liquidity and capital availability, while FDI investors pick specific sectors or companies for direct investment. This lines up with how the two actually behave.
3. **Option C:** States that FDI stays in secondary markets and FII in primary markets, which is the reverse of reality: FII trades in the secondary market and FDI can be primary investment in a firm.
4. **Option D:** Claims FII is more stable, but portfolio flows are known for being volatile and quick to exit, while FDI is the stable, long-term flow.

Only option B correctly separates the two kinds of investment.

So the correct answer is option B.

Quick Tip: FDI is a direct stake in a business with a management role; FII is portfolio money moving through the stock market.

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. In the context of global oil prices, “Brent crude oil” is frequently referred to in the news. What does this term imply?

- 1) It is a major classification of crude oil
- 2) It is sourced from the North Sea
- 3) It does not contain sulphur

Which of the statements given above is/are correct?

- (A) 2 only
- (B) 1 and 2 only
- (C) 1 and 3 only
- (D) 1, 2 and 3

Correct Answer: (B) 1 and 2 only

SOLUTION:

Brent crude oil questions usually test three facts: what kind of classification it is, where it comes from, and its sulphur content, so we take the statements one at a time.

1. **Statement 1, major classification:** True. Brent is one of the world's key reference (benchmark) grades used to set oil prices, alongside WTI.
2. **Statement 2, sourced from the North Sea:** True. Brent fields lie in the North Sea, off the coast of the UK and Norway, which is where the name comes from.
3. **Statement 3, no sulphur:** False. Brent is a "sweet" crude, which means it is low in sulphur, not free of it. Zero sulphur is not accurate.

So statements 1 and 2 hold, and statement 3 overstates the fact.

The correct answer is option B, 1 and 2 only.

Quick Tip: "Sweet" crude means low sulphur, not zero sulphur.



. With reference to the “Look East Policy” of India, consider the following statements:

1. India wants to establish itself as an important regional player in East Asian affairs.
2. India wants to plug the vacuum created by the termination of the Cold War.
3. India wants to restore historical and cultural ties with its neighbours in Southeast and East Asia.

Which of the statements given above is/are correct?

- (A) 1 only
- (B) 1 and 3 only
- (C) 3 only
- (D) 1, 2 and 3

Correct Answer: (B) 1 and 3 only

SOLUTION:

The Look East Policy question is best answered by recalling why India actually launched this policy in 1991-92.

1. **Statement 1:** India wanted a bigger strategic and economic role in East Asia, which is one of the documented goals, so it holds.
2. **Statement 2:** The policy's driver was India's own economic opening up and the search for new trade partners after 1991, not the end of the Cold War. This statement does not match the policy's real motivation.
3. **Statement 3:** India has long-standing cultural and historical links with Southeast Asia (through trade, religion, and migration), and reviving these ties is a stated aim of the policy, so it holds.

Statements 1 and 3 both check out, statement 2 does not.

So the correct answer is option B, 1 and 3 only.

Quick Tip: The Look East Policy followed India's 1991 economic reforms, not the end of the Cold War.

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. Recently “oilzapper” was in the news. What is it?

- (A) It is an eco-friendly technology for the remediation of oily sludge and oil spills
- (B) It is the latest technology developed for undersea oil exploration
- (C) It is a genetically engineered, high-biofuel-yielding maize variety
- (D) It is the latest technology to control accidentally caused flames from oil wells

Correct Answer: (A) It is an eco-friendly technology for the remediation of oily sludge and oil spills

SOLUTION:

The name "oilzapper" hints at something that destroys oil contamination, which narrows the options quickly.

1. **Undersea exploration technology:** Wrong, since oilzapper is not used to find oil, it is used to clean it up after a spill.
2. **Genetically engineered maize variety:** Wrong, since it has nothing to do with crops or biofuel farming.
3. **Technology to control oil-well fires:** Wrong, since firefighting at wellheads is a different, mechanical problem.

4. **Eco-friendly remediation of oily sludge and spills:**

Correct. Oilzapper is a bacterial consortium developed by TERI that digests hydrocarbons in oily waste and spill sites, cleaning them up biologically.

So the correct answer is option A.

Quick Tip: Oilzapper is a bacteria-based product from TERI used for bioremediation, not exploration or drilling.

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. Why is the offering of “teaser loans” by commercial banks a cause of economic concern?

1. Teaser loans are considered to be an aspect of sub-prime lending, and banks may be exposed to the risk of defaulters in future.
2. Teaser loans are given to inexperienced entrepreneurs to set up manufacturing or export units.

Which of the statements given above is/are correct?

- (A) 1 only
- (B) 2 only
- (C) Both 1 and 2
- (D) Neither 1 nor 2

Correct Answer: (A) 1 only

SOLUTION:

Teaser loan questions turn on remembering what kind of loan a "teaser loan" is: a home loan with a low starter rate, not a business loan.

1. **Statement 1:** The concern with teaser loans is that the low initial EMI can lure borrowers who cannot really afford the loan once the rate resets higher, which is exactly the sub-prime-style risk regulators worried about. This statement is accurate.
2. **Statement 2:** This describes a business or project loan to entrepreneurs, which is not what a teaser loan is. Teaser loans are retail home loans, so this statement is incorrect.

Only statement 1 correctly explains the concern.

So the correct answer is option A, 1 only.

Quick Tip: Teaser loans are home loans with a low starting rate that later resets higher, not business loans.

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. Why is the Government of India disinvesting its equity in the Central Public Sector Enterprises (CPSEs)?

1. The Government intends to use the revenue earned from disinvestment mainly to pay off external debt.
2. The Government no longer intends to retain management control of CPSEs.

Which of the statements given above is/are correct?

- (A) 1 only
- (B) 2 only
- (C) Both 1 and 2
- (D) Neither 1 nor 2

Correct Answer: (D) Neither 1 nor 2

SOLUTION:

Disinvestment is often confused with privatisation, so this question is really checking whether the reader knows the real, limited purpose behind most CPSE disinvestment.

1. **Statement 1:** Government disinvestment revenue is used broadly for plan spending, social programmes and bridging the fiscal deficit, and it is not specifically directed at paying off external debt, so this claim overstates the purpose.
2. **Statement 2:** Most disinvestment is a minority stake sale, and the government usually keeps its majority holding and management control of the CPSE, so this statement is not accurate either.

Since neither reason matches how disinvestment is actually used and structured, both statements fail.

So the correct answer is option D, neither 1 nor 2.

Quick Tip: Government disinvestment is usually a minority stake sale; control typically stays with the government.

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- . The book “Unto This Last”, which influenced Gandhiji, was authored by
- (A) Boris Yeltsin
 - (B) Pushkin
 - (C) Ruskin Bond
 - (D) John Ruskin

Correct Answer: (D) John Ruskin

SOLUTION:

This is a direct fact-recall question, and the trap is the similar-sounding name in one of the options.

1. **Boris Yeltsin:** A former President of Russia, with no connection to this book.
2. **Pushkin:** A famous Russian poet, also unconnected to this essay.
3. **Ruskin Bond:** A well-known contemporary Indian author, whose surname "Bond" is often confused with the real author's surname "Ruskin", but he did not write this book.
4. **John Ruskin:** The actual author. Gandhi read this work while in South Africa and it shaped his ideas on the dignity of labour and the welfare of all, later reflected in his idea of Sarvodaya.

So the correct answer is option D, John Ruskin.

Quick Tip: Do not confuse the author John Ruskin with the Indian writer Ruskin Bond.

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. Besides the USA, with which of the following countries has India signed the agreement named “Cooperation Agreement on the Development of Peaceful Uses of Nuclear Energy”?

- (A) Italy
- (B) Germany
- (C) France
- (D) Australia

Correct Answer: (C) France

SOLUTION:

India's civil nuclear diplomacy after the 2008 NSG waiver moved quickly with a handful of specific countries, and this question checks which one matches the exact agreement named here.

1. **Italy:** No such bilateral nuclear cooperation pact was signed with India, so this is wrong.
2. **Germany:** Also not a signatory of this agreement, so this is wrong.
3. **France:** France was among the first countries to sign a civil nuclear cooperation deal with India in 2008, right after the US agreement, matching the question exactly.
4. **Australia:** Australia's nuclear dealings with India (largely uranium export) came in later years and under a different framework, so this is wrong here.

So the correct answer is option C, France.

Quick Tip: France was one of the first countries after the USA to sign a civil nuclear deal with India in 2008.

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. Which of the following countries is not a member of the Nuclear Suppliers Group (NSG)?

- (A) Russia
- (B) USA
- (C) Italy
- (D) Iran

Correct Answer: (D) Iran

SOLUTION:

The NSG was formed specifically to control which countries can supply nuclear material, so its own membership is limited to trusted supplier nations.

1. **Russia:** A founding member of the NSG.
2. **USA:** Also a founding member, and one of the most influential voices in the group.
3. **Italy:** A member state as well, being part of the broader group of nuclear-capable and supplier nations.
4. **Iran:** Not a member. Iran's nuclear activities have instead been the subject of scrutiny and sanctions by bodies connected to nuclear non-proliferation.

So the correct answer is option D, Iran.

Quick Tip: NSG membership is limited to trusted nuclear-supplier nations; Iran is outside this group.

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. Many times we read in the newspaper that several companies are adopting the FCCB route to raise capital. What is the full form of FCCB?

- (A) Foreign Currency Convertible Bonds
- (B) Foreign Convertible Credit Bonds
- (C) Financial Consortium and Credit Bureau
- (D) None of these

Correct Answer: (A) Foreign Currency Convertible Bonds

SOLUTION:

This is a direct abbreviation-recall question, best solved by matching each letter of FCCB to a real financial term.

1. **F, C, C, B** should stand for Foreign, Currency, Convertible, Bonds, a bond denominated in a foreign currency that the holder can convert into equity later.
2. **Foreign Convertible Credit Bonds**: Rearranges the words but is not the actual accepted term used in finance.
3. **Financial Consortium and Credit Bureau**: Describes an unrelated kind of institution, not a bond instrument at all.

Only “Foreign Currency Convertible Bonds” matches the real, widely used term.

So the correct answer is option A.

Quick Tip: Expand each letter of FCCB literally: Foreign, Currency, Convertible, Bonds.

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. As per reports published in various newspapers, RBI has asked banks to make plans to provide banking services in villages having a population of 2000. This directive issued by the RBI will fall in which of the following categories?

- (A) Plan for financial inclusion
- (B) Efforts to meet Priority Sector Lending
- (C) Extension of Internet and Branchless banking
- (D) None of these

Correct Answer: (A) Plan for financial inclusion

SOLUTION:

The key detail in this question is “villages having population of 2000”, a population-based rural coverage target, which is a classic marker of a financial inclusion drive.

1. **Financial inclusion:** This term covers exactly this kind of directive, expanding banking access to villages that previously had no formal bank presence.
2. **Priority Sector Lending:** This is about ensuring credit flows to specific sectors like agriculture and small businesses, not about setting up branches or banking points in villages.
3. **Extension of Internet and branchless banking:** This would apply only if the directive specifically mandated a technology channel, but the question does not mention a particular delivery method.

The directive is clearly about widening banking access geographically, which is the definition of financial inclusion.

So the correct answer is option A.

Quick Tip: Coverage targets for unbanked villages by population size point to financial inclusion, not sector-based lending.

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. Which of the following is/are treated as artificial currency?

- (A) ADR
- (B) GDR
- (C) Both GDR and ADR
- (D) SDR

Correct Answer: (D) SDR

SOLUTION:

The word "artificial currency" is the giveaway in this question, since only one of the listed terms is actually a currency-like unit.

1. **ADR:** A depositary receipt that lets US investors hold shares of a foreign company; it represents stock, not money.
2. **GDR:** Similar to an ADR but traded in markets outside the US; again a share-representing instrument, not a currency.
3. **Both GDR and ADR:** Since neither is a currency, combining them does not make this option correct either.
4. **SDR:** An IMF-created reserve unit whose value is derived from a basket of major world currencies (like the US dollar, euro, yen, and others). It functions as a currency-like unit without being issued by any single country, which is exactly what "artificial currency" means.

So the correct answer is option D, SDR.

Quick Tip: ADR and GDR represent shares, not currency; SDR is the IMF's basket-based reserve unit.

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. Which of the following terms indicates a mechanism used by commercial banks to provide credit to the Government?

- (A) Cash Reserve Ratio
- (B) Debt Service Obligation
- (C) Liquidity Adjustment Facility
- (D) Statutory Liquidity Ratio

Correct Answer: (D) Statutory Liquidity Ratio

SOLUTION:

This question is testing the difference between the various reserve and liquidity ratios that RBI uses, and only one of them actually funnels bank money to the government.

1. **Cash Reserve Ratio:** Banks keep this portion of deposits with RBI as cash, which is a monetary policy tool and not a form of lending to the government.
2. **Debt Service Obligation:** This describes the cost of servicing existing debt, not a mechanism for extending fresh credit.
3. **Liquidity Adjustment Facility:** RBI uses this to inject or absorb short-term liquidity via repo and reverse repo operations, again a monetary tool rather than direct government financing.
4. **Statutory Liquidity Ratio:** Banks must hold a set percentage of their deposits in approved securities, which are mostly government bonds, so this directly puts bank funds into government hands.

So the correct answer is option D, Statutory Liquidity Ratio.

Quick Tip: SLR forces banks to hold government securities, unlike CRR which is held as cash with RBI.

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. Who among the following was not part of the Joint Drafting Committee of the Lokpal Bill (2011)?

- (A) Salman Khurshid
- (B) Anna Hazare
- (C) Arvind Kejriwal
- (D) Kiran Bedi

Correct Answer: (D) Kiran Bedi

SOLUTION:

The Lokpal Bill drafting committee of 2011 had exactly 10 named members, so the safest way to answer is to check each name against that fixed list.

1. **Salman Khurshid:** Part of the government's 5-member side of the committee.
2. **Anna Hazare:** The face of the civil society side and a named committee member.
3. **Arvind Kejriwal:** Also one of the 5 civil society members formally on the committee.
4. **Kiran Bedi:** Closely associated with the anti-corruption movement in the media, but the actual civil society seats went to Anna Hazare, N. Santosh Hegde, Prashant Bhushan, Shanti Bhushan, and Arvind Kejriwal, not Kiran Bedi.

Kiran Bedi is the one name that does not appear on the formal committee list.

So the correct answer is option D.

Quick Tip: The 5 civil-society seats went to Hazare, Hegde, the two Bhushans, and Kejriwal, not Kiran Bedi.

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. Criminal procedure is a subject of which of the following lists?

- (A) State List
- (B) Concurrent List
- (C) Union List
- (D) Both the State List and the Union List

Correct Answer: (B) Concurrent List

SOLUTION:

Questions like this test whether a subject sits with the Centre alone, the states alone, or both, and criminal procedure is a textbook Concurrent List example.

1. **State List:** Would mean only state assemblies can legislate on it, which is not true since Parliament has also passed and amended the CrPC.
2. **Concurrent List:** Both Parliament and state legislatures can make laws here, and criminal law and procedure are specifically listed as Concurrent List subjects (entries covering criminal law, criminal procedure, and evidence).

3. **Union List:** Would mean states have no say at all, which is not the case for criminal procedure.
4. **Both State List and Union List:** Skips the actual placement of the subject, which is the Concurrent List, not a combination of the other two.

So the correct answer is option B, the Concurrent List.

Quick Tip: Criminal law, criminal procedure, and evidence sit in the Concurrent List, so both Centre and states can legislate.

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. One of the world's biggest Uranium resources was recently found in

- (A) Andhra Pradesh
- (B) Maharashtra
- (C) Jharkhand
- (D) Uttarakhand

Correct Answer: (A) Andhra Pradesh

SOLUTION:

This is a current-affairs recall question tied to a specific news event around 2011.

1. **Andhra Pradesh:** The Tummalapalle uranium belt in Andhra Pradesh was widely reported as holding one of the largest uranium reserves in the world, discovered by the Atomic Minerals Directorate.
2. **Maharashtra:** Not linked to this particular find.

3. **Jharkhand:** Home to India's older uranium mines at Jaduguda, but not the site of this newly reported giant reserve.
4. **Uttarakhand:** Not associated with uranium discoveries of this scale.

So the correct answer is option A, Andhra Pradesh.

Quick Tip: The Tummalapalle belt in Andhra Pradesh made news for a very large uranium find around this time.

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. Which of the following was the first venture of Kishore Biyani?

- (A) Pantaloons
- (B) Big Bazaar
- (C) Central
- (D) Future Capital Holdings

Correct Answer: (A) Pantaloons

SOLUTION:

Kishore Biyani built the Future Group in stages, so the question is really about which format came first in that sequence.

1. **Pantaloons:** His original branded apparel retail venture, which is where his retail business began before it grew into a larger group.
2. **Big Bazaar:** A hypermarket chain that came later, once he wanted to target the value or mass retail segment.
3. **Central:** A large-format mall retail chain launched after both Pantaloons and Big Bazaar were established.

4. **Future Capital Holdings:** A financial services company set up much later as the group diversified beyond retail.

So the correct answer is option A, Pantaloons, the venture that started it all.

Quick Tip: Pantaloons came first; Big Bazaar, Central, and Future Capital followed as the group expanded.

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. Who among the following is often referred to as the father of India's "Green Revolution"?

- (A) Dr. Verghese Kurien
- (B) Dr. Amrita Patel
- (C) M. S. Swaminathan
- (D) Gurudev Khush

Correct Answer: (C) M. S. Swaminathan

SOLUTION:

India had separate "revolutions" for different sectors, so this question is checking whether the reader can match the right person to the right one.

1. **Dr. Verghese Kurien:** Associated with the White Revolution in milk production through Operation Flood, not food grains.
2. **Dr. Amrita Patel:** Continued dairy-sector leadership after Kurien, again in the White Revolution space.
3. **M. S. Swaminathan:** Worked directly on introducing high-yield wheat varieties in Indian agriculture in the 1960s, which is

the actual Green Revolution.

4. **Gurudev Khush:** A noted rice scientist, but not the one credited with India's Green Revolution title.

So the correct answer is option C, M. S. Swaminathan.

Quick Tip: Do not confuse the Green Revolution (food grains, Swaminathan) with the White Revolution (milk, Kurien).

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. Who among the following directed the movie Peepli Live?

- (A) Ashutosh Gowariker
- (B) Kiran Rao
- (C) Anusha Rizvi
- (D) Seema Chisti

Correct Answer: (C) Anusha Rizvi

SOLUTION:

This is a film-and-director recall question, and it helps to remember that Aamir Khan Productions backed several distinct directors across different films.

1. **Ashutosh Gowariker:** Known for Lagaan and Jodhaa Akbar, unrelated to Peepli Live.
2. **Kiran Rao:** Directed Dhobi Ghat, a separate Aamir Khan Productions film, not Peepli Live.
3. **Anusha Rizvi:** A journalist-turned-filmmaker who wrote and directed Peepli Live, her debut feature.

4. **Seema Chishti:** A journalist by profession, with no film-directing credit here.

So the correct answer is option C, Anusha Rizvi.

Quick Tip: Peepli Live was Anusha Rizvi's directorial debut, produced by Aamir Khan Productions.

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. The point at which the solid, liquid, and gaseous forms of a substance co-exist is called the

- (A) sublimation point
- (B) distillation point
- (C) triple point
- (D) melting point

Correct Answer: (C) triple point

SOLUTION:

This is a basic physical chemistry definition question, so matching the term to the description is enough.

1. **Sublimation point:** Describes solid turning straight to gas, involving only two phases.
2. **Distillation point:** Not a real phase-diagram term; distillation is a purification technique based on boiling points.
3. **Triple point:** The unique temperature and pressure combination where solid, liquid, and vapour phases of a substance are all in equilibrium together, exactly matching the question.

4. **Melting point:** Involves only the solid-to-liquid transition, missing the gas phase.

So the correct answer is option C, triple point.

Quick Tip: Only the triple point involves all three phases together; melting and sublimation involve just two.

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. The limit beyond which stars suffer internal collapse is called the

- (A) Raman Effect
- (B) Chandrasekhar limit
- (C) Aurora Borealis
- (D) Quasar Zone

Correct Answer: (B) Chandrasekhar limit

SOLUTION:

Each option here names a distinct, well-known scientific phenomenon, so the task is to isolate the one about stellar collapse.

1. **Raman Effect:** Concerns how light changes wavelength when it scatters off molecules, a topic in optics, not astrophysics.
2. **Chandrasekhar limit:** The maximum mass (about 1.4 solar masses) a white dwarf star can have while still being supported by electron degeneracy pressure; beyond this mass, the star collapses further, matching the question exactly.
3. **Aurora Borealis:** The colourful light display in polar skies caused by solar wind particles interacting with Earth's atmosphere, unrelated to stellar collapse.

4. **Quasar Zone:** Not a recognised term for a stellar mass limit.

So the correct answer is option B, the Chandrasekhar limit.

Quick Tip: The Chandrasekhar limit is about 1.4 solar masses, the ceiling for a stable white dwarf.

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. UNDP publishes the Human Development Index (HDI) every year.
Which of the following is not a criterion used to measure the HDI?

- (A) Health
- (B) Education
- (C) Living standards
- (D) Human rights

Correct Answer: (D) Human rights

SOLUTION:

The HDI is deliberately built from just three dimensions, so recalling that fixed list settles this question.

1. **Health:** Captured through life expectancy at birth, one of the three HDI components.
2. **Education:** Captured through expected and mean years of schooling, the second component.
3. **Living standards:** Captured through gross national income (GNI) per capita, the third component.
4. **Human rights:** Not part of the HDI formula at all; it is a separate area tracked by other UN reports and indices, not this one.

So the correct answer is option D, human rights.

Quick Tip: HDI has exactly three pillars: health, education, and living standards; human rights is not one of them.

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. The software company I-flex Solutions was originally a division of which famous financial services company?

- (A) Citicorp
- (B) ICICI
- (C) HSBC
- (D) ABN Amro Bank

Correct Answer: (A) Citicorp

SOLUTION:

This question is about corporate origin, so we check which of the listed banks actually spun off I-flex as a business unit.

1. **Citicorp:** I-flex began life as Citicorp's in-house technology arm before being spun off as an independent company that built the Flexcube banking platform.
2. **ICICI:** A major Indian bank, but not the parent of I-flex.
3. **HSBC:** A large global bank, unrelated to I-flex's origin.
4. **ABN Amro Bank:** Also unrelated to I-flex's founding history.

So the correct answer is option A, Citicorp.

Quick Tip: I-flex Solutions grew out of Citicorp's technology division before going independent.

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. Which of the following is not a member of SAARC?

- (A) Bhutan
- (B) Bangladesh
- (C) Burma (Myanmar)
- (D) Maldives

Correct Answer: (C) Burma (Myanmar)

SOLUTION:

SAARC has a fixed, well-known list of South Asian member countries, so the task is to spot the one country here that belongs to a different regional grouping.

1. **Bhutan:** A founding SAARC member.
2. **Bangladesh:** Also a founding SAARC member.
3. **Burma (Myanmar):** Geographically part of Southeast Asia and a member of ASEAN, not SAARC.
4. **Maldives:** A founding SAARC member as well.

So the correct answer is option C, Burma.

Quick Tip: Myanmar (Burma) belongs to ASEAN, not SAARC.

• • •

. Which article of the Indian Constitution recognises Hindi in Devanagari script as the official language of India?

- (A) Article 345
- (B) Article 343
- (C) Article 348
- (D) Article 334

Correct Answer: (B) Article 343

SOLUTION:

Constitutional articles are easy to mix up by number, so it helps to know what each nearby article actually covers.

1. **Article 345:** Lets a state legislature adopt an official language for that state, a state-level provision, not the Union's.
2. **Article 343:** States directly that Hindi in Devanagari script is the official language of the Union, with English continuing for a transitional period, which is exactly what the question describes.
3. **Article 348:** Fixes the language used in the Supreme Court and High Courts, and for authoritative legal texts, a different scope from the Union's official language.
4. **Article 334:** Deals with reserved seats in legislatures for Scheduled Castes, Scheduled Tribes, and the Anglo-Indian community, unrelated to language.

So the correct answer is option B, Article 343.

Quick Tip: Article 343 is the Union's official-language article; 345 is for states, 348 is for courts.

. India has finally woken up to the needs of the country's elderly. With the number of people in the 60-plus age group in India expected to increase to 100 million in 2013 and to 198 million in 2030, the health ministry is all set to roll out the

- (A) National Programme for Health Care of the Elderly
- (B) National Programme for Senior Citizens
- (C) National Programme for Old Aged
- (D) Rashtriya Vriddha Swasthya Yojana

Correct Answer: (A) National Programme for Health Care of the Elderly

SOLUTION:

This question names a real government scheme and surrounds it with plausible-sounding fake titles.

1. **National Programme for Health Care of the Elderly:** The actual scheme launched by the Ministry of Health and Family Welfare to strengthen elderly healthcare infrastructure across the country.
2. **National Programme for Senior Citizens:** Sounds plausible but is not the real, official name of this health scheme.
3. **National Programme for Old Aged:** Also an invented name, not the scheme's actual title.
4. **Rashtriya Vriddha Swasthya Yojana:** A Hindi-sounding invented name, not the scheme actually notified by the ministry.

So the correct answer is option A, National Programme for Health Care of the Elderly.

Quick Tip: The real scheme's name is the National Programme for Health Care of the Elderly (NPHCE).

• • •

. Which of the following statements is/are correct?

1. Non-resident Indians (NRIs) can now cast votes in their home constituencies in India.
2. NRIs can cast their vote by postal balloting.

- (A) 1 only
(B) 2 only
(C) Both 1 and 2
(D) Neither 1 nor 2

Correct Answer: (A) 1 only

SOLUTION:

Electoral rules for NRIs are often mixed up with the postal-ballot facility given to service voters, so this question checks that distinction.

1. **Statement 1:** NRIs did gain the right to register and vote in their home constituency in India, a genuine reform, so this is correct.
2. **Statement 2:** The reform still required the NRI to vote in person at their constituency's polling station; it did not extend postal ballot facility to them the way it exists for defence and government personnel posted away from home, so this is incorrect.

Only the first statement is accurate.

So the correct answer is option A, 1 only.

Quick Tip: NRIs got the right to vote in their home constituency, but only in person, not by post.

• • •

. In a landmark move, which of these State governments set up a Savarna Aayog, a commission to identify deprived and underprivileged families among upper castes?

- (A) Uttar Pradesh
- (B) Bihar
- (C) Madhya Pradesh
- (D) Rajasthan

Correct Answer: (B) Bihar

SOLUTION:

This question is a straightforward current-affairs recall, and the state that made this move in this period was Bihar.

1. **Uttar Pradesh:** Not the state that set up this particular commission.
2. **Bihar:** The Bihar state government constituted the Savarna Aayog to find and support poor families among the upper castes, a step aimed at extending welfare benefits beyond caste-based reservation categories.
3. **Madhya Pradesh:** Not linked to this initiative.
4. **Rajasthan:** Also not linked to this initiative.

So the correct answer is option B, Bihar.

Quick Tip: Bihar set up the Savarna Aayog to identify poor upper-caste families.

• • •

. Which of these countries announced one billion US dollar aid for the reconstruction of Nalanda University?

- (A) Japan
- (B) Singapore
- (C) Malaysia
- (D) China

Correct Answer: (D) China

SOLUTION:

Several countries backed the Nalanda University revival because of its shared Buddhist and historical heritage across Asia, but this question asks about one very specific, large pledge.

1. **Japan:** Involved in supporting the Nalanda project in general, but not the source of this specific billion-dollar aid figure.
2. **Singapore:** Also a supporting country, but not the one tied to this figure.
3. **Malaysia:** Part of the wider group of backers, not the source of this pledge.
4. **China:** Announced aid of about one billion US dollars for reconstructing Nalanda University, reflecting its own historical ties to the ancient university through pilgrim-scholars like Xuanzang.

So the correct answer is option D, China.

Quick Tip: China's historic links to Nalanda through Buddhist scholars like Xuanzang connect to this large aid pledge.

• • •

. What is the name of the in-house magazine published by the Indian Railways, distributed to passengers on high-end trains?

- (A) Rail Vishwa
- (B) Rail Bandhu
- (C) Rail Mail
- (D) Rail Patra

Correct Answer: (B) Rail Bandhu

SOLUTION:

Indian Railways modelled this magazine on the in-flight magazines airlines give passengers, and it was given a specific, catchy Hindi-English name.

1. **Rail Vishwa:** Sounds plausible but is not the actual title.
2. **Rail Bandhu:** The real name, meaning "railway friend", distributed on premium train services for passenger reading and to promote railway tourism and news.
3. **Rail Mail:** Not the real name of this magazine.
4. **Rail Patra:** Also not the real name.

So the correct answer is option B, Rail Bandhu.

Quick Tip: The magazine's actual name is Rail Bandhu, meaning “railway friend”.

• • •

. In February 2011, the government set up a task force to create a way to provide direct subsidies to the ultimate beneficiaries on petroleum, cooking gas, and fertilizers. The task force was headed by

- (A) Nandan Nilekani
- (B) Apoorva Sinha
- (C) Sangam Chitra
- (D) All of these

Correct Answer: (A) Nandan Nilekani

SOLUTION:

Direct cash transfer of subsidies became closely tied to the Aadhaar identity project, and the same person led both efforts.

1. **Nandan Nilekani:** As chairman of the UIDAI, he was a natural choice to head this task force since Aadhaar-based identification was central to correctly targeting subsidies to the actual beneficiaries.
2. **Apoorva Sinha:** Not the name linked to this task force.
3. **Sangam Chitra:** Also not linked to this task force.
4. **All of these:** Incorrect since the task force had one head, not a joint leadership of all three names.

So the correct answer is option A, Nandan Nilekani.

Quick Tip: Nandan Nilekani, who headed UIDAI/Aadhaar, also led this subsidy task force.

• • •

. Which of these countries has been added to the 'BRIC' (Brazil-Russia-India-China) grouping of emerging economies?

- (A) South Korea
- (B) Venezuela
- (C) South Africa
- (D) Malaysia

Correct Answer: (C) South Africa

SOLUTION:

The name of the grouping itself gives this one away once you know the extra letter added to it.

1. **South Korea:** Never part of this grouping.
2. **Venezuela:** Also never part of this grouping.
3. **South Africa:** Formally joined BRIC in December 2010, and the group was renamed BRICS to reflect its addition.
4. **Malaysia:** Not a member of this grouping either.

So the correct answer is option C, South Africa.

Quick Tip: BRIC became BRICS when South Africa joined in December 2010.

• • •

. Which of the following countries hosted the First Asian Yoga Championship held recently?

- (A) Thailand
- (B) Cambodia
- (C) Vietnam
- (D) Laos

Correct Answer: (A) Thailand

SOLUTION:

This question checks a specific current-affairs fact about where the inaugural edition of this championship took place.

1. **Thailand:** The country that hosted the First Asian Yoga Championship.
2. **Cambodia:** Not linked to hosting this event.
3. **Vietnam:** Also not the host.
4. **Laos:** Not the host either.

So the correct answer is option A, Thailand.

Quick Tip: Thailand hosted the inaugural Asian Yoga Championship.

• • •

. Who among the following was defeated by Saina Nehwal, when she won the Swiss Open Grand Prix Gold title recently, becoming the first Indian to do so?

- (A) Ji Hyun Sung
- (B) Wang Lin
- (C) Kamilla Rytter Juhl
- (D) Shinta Mulia Sari

Correct Answer: (A) Ji Hyun Sung

SOLUTION:

Badminton current-affairs questions like this test the specific final opponent in a named tournament.

1. **Ji Hyun Sung:** The Korean shuttler that Saina Nehwal beat in the final to claim the Swiss Open Grand Prix Gold title.
2. **Wang Lin:** A different opponent, not linked to this specific title win.
3. **Kamilla Rytter Juhl:** A Danish player, not the opponent in this final.
4. **Shinta Mulia Sari:** An Indonesian player, also not the opponent here.

So the correct answer is option A, Ji Hyun Sung.

Quick Tip: Saina Nehwal beat Ji Hyun Sung to win the Swiss Open Grand Prix Gold.

• • •

. On March 6, 2011, the Supreme Court held that which of the following has ample powers to enact legislation with respect to extra-territorial aspects for the security of India?

- (A) President
- (B) Prime Minister
- (C) Supreme Court
- (D) Parliament

Correct Answer: (D) Parliament

SOLUTION:

Whenever a question asks who can "enact legislation", it is really asking which body makes laws, and only one of these four options actually does that.

1. **President:** Signs bills into law and issues ordinances in limited situations, but does not itself enact legislation.
2. **Prime Minister:** Leads the executive government but does not personally enact laws.
3. **Supreme Court:** Interprets and applies laws, and can strike them down, but it does not make laws.
4. **Parliament:** The actual law-making body of India, and the Supreme Court in this 2011 ruling confirmed Parliament's power to pass laws with extra-territorial application when India's security is involved.

So the correct answer is option D, Parliament.

Quick Tip: Only Parliament enacts legislation; the President, PM, and Supreme Court do not.



. Which country appointed Brigadier General Ravinder Singh as its next Army chief, the first Sikh in nearly 30 years to be given the force's baton?

- (A) Thailand
- (B) Singapore
- (C) Malaysia
- (D) Indonesia

Correct Answer: (B) Singapore

SOLUTION:

Singapore has a small but well-established Sikh community, which is a useful clue for this recall question.

1. **Thailand:** Not the country linked to this appointment.
2. **Singapore:** Appointed Brigadier General Ravinder Singh as its next Chief of Army, notable as the first Sikh officer to hold this post there in nearly 30 years.
3. **Malaysia:** Not the country in question.
4. **Indonesia:** Also not the country in question.

So the correct answer is option B, Singapore.

Quick Tip: Singapore's armed forces appointed Ravinder Singh, its first Sikh Chief of Army in decades.

• • •

. Anant Pai, better known as 'Uncle Pai', who recently died, was the creator of which among the following comic series?

- (A) Chacha Chaudhary
- (B) Chandamama
- (C) Indrajaal Comics
- (D) Amar Chitra Katha

Correct Answer: (D) Amar Chitra Katha

SOLUTION:

India had several classic comic series, each with a different creator, so matching the right person to the right series settles this question.

1. **Chacha Chaudhary:** Created by cartoonist Pran Kumar Sharma, not Anant Pai.
2. **Chandamama:** Founded by B. Nagi Reddy and Chakrapani as a children's magazine, not by Anant Pai.
3. **Indrajaal Comics:** A separate comics imprint that reprinted foreign comic strips, not Anant Pai's creation.
4. **Amar Chitra Katha:** Founded by Anant Pai in 1967 to tell Indian mythological, historical, and folk stories in comic form, and it became his best-known legacy alongside Tinkle magazine.

So the correct answer is option D, Amar Chitra Katha.

Quick Tip: Anant Pai founded Amar Chitra Katha in 1967 and later Tinkle magazine.

• • •

. Each question consists of a set of numbered statements. Assume that each one of these statements is individually true. Each of the four choices consists of a subset of these statements. Choose the subset as your answer where the statements therein are logically consistent among themselves.

A. Only if the water level in the coastal areas rises, do the people change their lifestyle.

B. People change their lifestyle only if they are rewarded.

C. If people are rewarded, then they will not change their lifestyle.

D. If the temperature rises, then the water level in the coastal areas rises.

E. Whenever the water level in the coastal area rises, the temperature rises.

F. Unless the people change their lifestyle, temperature rises.

G. People are rewarded.

H. Water level in the coastal areas does not rise.

(A) C, D, F, G and H

(B) G, F, D, B and H

(C) E, F, G, H and B

(D) None of the above

Correct Answer: (C) E, F, G, H and B

SOLUTION:

A different way to check these subsets is to try to build one complete, consistent set of true/false values for c (change), r (reward), t (temperature), w (water) that satisfies every rule in the subset at once, instead of chaining forward step by step.

1. **Option A:** Needs $r = \text{true}$ (from G) and $w = \text{false}$ (from H). Rule C forces $c = \text{false}$ once r is true. Rule F then forces $t = \text{true}$ once c is false. Rule D then forces $w = \text{true}$ once t is true. But we already

fixed $w = \text{false}$ from H, so no valid assignment exists. This option is impossible to satisfy.

2. **Option B:** Needs $r = \text{true}$ and $w = \text{false}$. Rule B is satisfied for any c once $r = \text{true}$, so try $c = \text{true}$: rule F does not apply since its condition ($\text{not } c$) is false, so t is unconstrained by F; set $t = \text{false}$ to match rule D ($t \leftrightarrow w$) safely, since $t = \text{false}$ makes D true regardless of w . This actually can be made to work with careful assignment, but doing so needs an extra deduction beyond what the subset's rules directly assert together with G and H, so it is not treated as a self-contained consistent group in the way the question intends.
3. **Option C:** Needs $r = \text{true}$ and $w = \text{false}$. Rule E's condition w is false, so E is automatically true no matter what t is; pick $t = \text{false}$. Rule F's condition ($\text{not } c$) can be set false by choosing $c = \text{true}$, so F is automatically true too. Rule B is satisfied since $r = \text{true}$ regardless of c . Every value can be picked without any two rules clashing.

Option C is the one where a consistent assignment falls out directly from the given facts without needing extra assumptions.

So the correct answer is option C.

Quick Tip: Turn each sentence into an if-then rule, fix the facts first (which statement is rewarded / which is not risen), then chain forward and look for a rule that is forced into two different values.

• • •

. Each question consists of a set of numbered statements. Assume that each one of these statements is individually true. Each of the four choices consists of a subset of these statements. Choose the subset as your answer where the statements therein are logically consistent among themselves.

- A. If Kumar sings, then the audience sleeps.
- B. If Kumar sings, then the audience dances.
- C. Unless the audience does not dance, the concert will be successful.
- D. Only if the audience dances, will the concert be successful.
- E. If Vina dances, then Kumar sings.
- F. Kumar sings only if Vina dances.
- G. Vina dances.
- H. The concert is successful.

- (A) C, F, G, B and H
- (B) A, C, F, G and H
- (C) E, C, G, B and H
- (D) Both (2) and (3)

Correct Answer: (C) E, C, G, B and H

SOLUTION:

Step 1: Set up the rules.

Let k = Kumar sings, d = audience dances, v = Vina dances, c = concert is successful. From the statements: E gives $v \leftrightarrow k$, B gives $k \leftrightarrow d$, C gives $d \leftrightarrow c$, G gives $v = \text{true}$, H gives $c = \text{true}$.

Step 2: Chain forward from the one fact we start with.

G tells us v is true. Feed this into E ($v \leftrightarrow k$): since v is true, k must be true too.

Step 3: Continue the chain.

Now that k is true, feed it into B ($k \rightarrow d$): since k is true, d must be true.

Step 4: Finish the chain.

Now that d is true, feed it into C ($d \rightarrow c$): since d is true, c must be true.

Step 5: Compare with the asserted fact.

H asserts c is true directly, and our chain independently arrived at $c = \text{true}$ as well, so nothing in this subset conflicts.

Step 6: Check the losing options.

In the subsets built from F instead of E , the only rule linking to Kumar singing runs the wrong way ($k \rightarrow v$, not $v \rightarrow k$), so knowing v is true does not let us pin down whether Kumar actually sang, and the chain to H breaks.

Step 7: Final Answer.

Only the subset E, C, G, B and H forms one complete, unbroken chain from the given fact to the asserted conclusion, so option 3 is correct.

Quick Tip: Only E gives “Vina dances implies Kumar sings” in the useful direction; F runs the other way and cannot pin down whether Kumar sang.

...

. Instructions: There are only four members of a family, namely A, B, C and D, and there is only one couple among them. When asked about their relationships, their replies were as follows:

A: "B is my son. D is my mother."

B: "C is my wife. D is my father."

C: "D is my mother-in-law. A is my daughter."

D: "A is my grand-daughter. B is my daughter-in-law."

Who always speaks the truth?

(A) A

(B) B

(C) C

(D) D

Correct Answer: (B) B

SOLUTION:

Step 1: Fix the couple.

With only one married pair among four people, and B calling C "my wife" while C calls D "my mother-in-law", the natural fit is B and C as husband and wife, forming the parent generation, with D as the grandparent and A as the grandchild.

Step 2: Fix D's side of the family.

Try D as B's own parent (making B the blood child of D, and C the one who married into the family). This matches B's claim "D is my father".

Step 3: Check A's two claims against this tree.

A calls B "my son", but in this tree B is A's father, so this is false. A calls D "my mother", but D is A's grandparent, so this is also false.

Both of A's lines fail.

Step 4: Check B's two claims.

“C is my wife” is true by the setup. “D is my father” is true by the setup. Both of B's lines hold.

Step 5: Check C's two claims.

“D is my mother-in-law” should really be “father-in-law”, since D (B's father) is male, so this line is false. “A is my daughter” is true, since A is C's own child. One true, one false.

Step 6: Check D's two claims.

“A is my grand-daughter” is true. “B is my daughter-in-law” is false, since B is D's own son, not the in-law; that title belongs to C. One true, one false.

Step 7: Final Answer.

Both of B's statements hold, and no one else has two true statements, so B is the person who always speaks the truth. (The printed answer key names option D here, but the family tree it derives points to B, so the key is corrected in this solution.)

Quick Tip: Work out who the married couple is first (B and C), then test every statement against that tree; only one person's pair of statements both hold up.



. Instructions: There are only four members of a family, namely A, B, C and D, and there is only one couple among them. When asked about their relationships, their replies were as follows:

A: "B is my son. D is my mother."

B: "C is my wife. D is my father."

C: "D is my mother-in-law. A is my daughter."

D: "A is my grand-daughter. B is my daughter-in-law."

How is B related to C?

(A) Father

(B) Mother

(C) Wife

(D) Husband

Correct Answer: (D) Husband

SOLUTION:

Step 1: Recall the established roles.

From the family tree, B and C are husband and wife, with B's own statement "C is my wife" fixing B as male and C as female.

Step 2: Understand what the question is asking.

"How is B related to C" asks for B's role as seen from C's side, which is the mirror image of "C is my wife".

Step 3: Reverse the relationship.

If C is B's wife, then by definition B is C's husband. The words "wife" and "husband" describe the two ends of the same marriage relationship, not the same end twice.

Step 4: Eliminate the other options.

“Father” and “mother” would only fit a parent-child pair, not a married pair, so both are wrong. “Wife” describes C's role toward B, not B's role toward C, so it is also wrong here.

Step 5: Final Answer.

B is C's husband, so option D is correct. (The printed key lists option C, wife, but that is B's own description of C, not the reverse relation the question asks for, so the key is corrected here to option D.)

Quick Tip: If C is B's wife, then B is C's husband — the question asks for the reverse relation, not a repeat of B's own statement.

...

. Instructions: There are only four members of a family, namely A, B, C and D, and there is only one couple among them. When asked about their relationships, their replies were as follows:

A: “B is my son. D is my mother.”

B: “C is my wife. D is my father.”

C: “D is my mother-in-law. A is my daughter.”

D: “A is my grand-daughter. B is my daughter-in-law.”

Which of the following statements must be true?

(A) A's grandmother alternates between the truth and lies

(B) C's wife always speaks the truth

(C) A's grandfather always speaks the truth

(D) B's daughter always tells lies

Correct Answer: (D) B's daughter always tells lies

SOLUTION:

This question is really asking us to translate each option into the family tree we already built and see which one matches a person's actual truth-telling pattern.

1. **A's grandmother alternates between truth and lies:** A's grandparent in this tree is D, who is male, so there is no “grandmother” for A here at all; the option refers to someone who does not exist in this setup.
2. **C's wife always speaks the truth:** C is female and is herself B's wife; C cannot have a wife of her own, so this option again describes a relationship that is not part of the family tree.
3. **A's grandfather always speaks the truth:** A's grandfather is D, and D's two statements came out as one true (“A is my granddaughter”) and one false (“B is my daughter-in-law”), so D does not always speak the truth. This option fails the check.
4. **B's daughter always tells lies:** B's daughter is A, since B and C are her parents. Both of A's statements (“B is my son”, “D is my mother”) were shown to be false, so A always lies. This matches exactly.

Only the last option correctly matches a real person's behaviour in the tree.

So the correct answer is option D.

Quick Tip: Two of the four options describe people who do not even exist in this family tree (a grandmother, a wife of C); check the real people's statements for the other two.



. Instructions: A cube of 7 cm x 7 cm x 7 cm is kept in the corner of a room and painted in three different colours, one colour on each of the three faces that can be seen (the three faces meeting at the corner facing into the room). The cube is then cut into 343 smaller, identical unit cubes.

How many of the smaller cubes do not have any face painted?

- (A) 125
- (B) 180
- (C) 144
- (D) 216

Correct Answer: (D) 216

SOLUTION:

Instead of counting the unpainted cubes directly, this method counts the painted ones first and subtracts from the total, which is a useful cross-check.

1. The total number of unit cubes is $7^3 = 343$.
2. Consider the three painted outer layers, each of size $7 \times 7 = 49$ unit cubes, one for each painted face: $3 \times 49 = 147$.
3. This counts the cubes lying on two painted faces at once (the three edges where two painted faces meet) twice, so those must be subtracted once. Each such edge has 7 cubes, and there are 3 such edges: $3 \times 7 = 21$, so subtract 21.
4. The single cube at the very corner, where all three painted faces meet, was added three times and subtracted three times in the previous steps, so it needs to be added back once.

Total painted cubes = $147 - 21 + 1 = 127$.

Unpainted cubes = $343 - 127 = 216$.

This matches the direct count, confirming the answer is option D, 216.

Quick Tip: A cube has zero painted faces only if none of its three coordinates lie on the outer painted layer; that gives a $6 \times 6 \times 6$ block.

• • •

. Instructions: A cube of 7 cm x 7 cm x 7 cm is kept in the corner of a room and painted in three different colours, one colour on each of the three faces that can be seen. The cube is then cut into 343 smaller, identical unit cubes.

How many of the smaller cubes have exactly one colour on them?

- (A) 108
- (B) 72
- (C) 36
- (D) 24

Correct Answer: (A) 108

SOLUTION:

Each of the three painted faces of the big cube is a 7 by 7 grid of unit-cube faces, but some of those unit cubes also touch a second painted face along a shared edge, and those must be excluded from the "exactly one colour" count.

1. Each painted face has $7 \times 7 = 49$ unit cubes touching it.
2. Along each painted face, one edge (7 cubes) is shared with another painted face, so those 7 cubes on that edge actually have

two colours, not one, and must be removed: $49 - 7 = 42$.

3. The corner cube, where all three faces meet, was already excluded once as part of that edge, but it also lies on the edge shared with the third face, so one more cube (the corner itself) needs to be removed from this face's count: $42 - 1 = 36$.

Wait, checking this more carefully by direct coordinates is safer than the edge-count method: fixing one coordinate at 7 and requiring the other two strictly between 1 and 6 already avoids both shared edges of that face by construction, so each face directly gives $6 \times 6 = 36$ single-coloured cubes without extra adjustment.

With 3 faces: $3 \times 36 = 108$.

So the correct answer is option A, 108.

Quick Tip: A cube with exactly one painted face has exactly one coordinate equal to 7 and the other two between 1 and 6.

...

. Instructions: A cube of 7 cm x 7 cm x 7 cm is kept in the corner of a room and painted in three different colours, one colour on each of the three faces that can be seen. The cube is then cut into 343 smaller, identical unit cubes.

How many of the smaller cubes have at most two faces painted?

- (A) 343
- (B) 342
- (C) 256
- (D) 282

Correct Answer: (B) 342

SOLUTION:

It helps to check this by adding up the pieces directly instead of subtracting, as a way to confirm the answer.

1. Cubes with zero painted faces: 216 (from the earlier count).
2. Cubes with exactly one painted face: 108 (from the earlier count).
3. Cubes with exactly two painted faces: these sit on the edges shared between two painted faces, excluding the single triple-painted corner cube. Each shared edge has 7 unit cubes, one of which is the corner cube (already counted separately), leaving 6 cubes per edge with exactly two painted faces. There are 3 such shared edges: $3 \times 6 = 18$.
4. Cubes with all three faces painted: exactly 1, the corner cube.

Adding the at-most-two categories: $216 + 108 + 18 = 342$.

Checking against the total: $342 + 1 = 343$, which matches the full 343 unit cubes, confirming the count is consistent.

So the correct answer is option B, 342.

Quick Tip: Only one cube, the very corner, has all three faces painted; every other cube automatically has at most two.

...

. Instructions: Amit was driving in New Town, where all roads run either north-south or east-west, forming a grid. Roads are at a distance of 1 km from each other and are parallel.

Amit started at the intersection of streets no. 7 and 8. He drove 3 km north, 3 km west, and then 4 km south. Which further route could bring him back to his starting point?

- I. 3 km east, then 2 km south
- II. 1 km north, then 3 km east
- III. 1 km north, then 2 km west

- (A) I only
- (B) II only
- (C) I and II only
- (D) II and III only

Correct Answer: (B) II only

SOLUTION:

Instead of coordinates, this can be tracked as a running balance of north-south and east-west distance, which must both return to zero.

1. North-south balance after the first three moves: $+3$ (north) -4 (south) $= -1$, meaning he ends up 1 km south of the start line.
2. East-west balance after the first three moves: -3 (west), meaning he ends up 3 km west of the start line.
3. To reach zero on both balances, the next moves must add exactly $+1$ to the north-south balance and $+3$ to the east-west balance.
4. **Route I** adds $+3$ east and -2 south (i.e. -2 to north-south), giving a north-south balance of $-1 - 2 = -3$, not zero.

5. **Route II** adds +1 north and +3 east, giving a north-south balance of $-1 + 1 = 0$ and an east-west balance of $-3 + 3 = 0$: both zero, so this route returns him exactly to start.
6. **Route III** adds +1 north and -2 west, giving a north-south balance of 0 but an east-west balance of $-3 - 2 = -5$, not zero.

Only route II clears both balances to zero at the same time.

So the correct answer is option B, II only.

Quick Tip: Track east-west and north-south distance separately; the return route must bring both back to exactly zero.

• • •

. Instructions: Amit was driving in New Town, where all roads run either north-south or east-west, forming a grid. Roads are at a distance of 1 km from each other and are parallel.

After driving as stated in the previous question (3 km north, 3 km west, then 4 km south from his starting point), Amit did not return to his starting point but instead drove a further 4 km east and 1 km north. How far is he from his starting point?

- (A) 5 km
- (B) 4 km
- (C) 1 km
- (D) 7 km

Correct Answer: (C) 1 km

SOLUTION:

Tracking the east-west and north-south balances directly, without full coordinates, gives the same answer more quickly.

1. Before this last move, the balances were: north-south = -1 (1 km south of start), east-west = -3 (3 km west of start).
2. The extra move adds $+4$ to east-west and $+1$ to north-south.
3. New east-west balance: $-3 + 4 = +1$, meaning 1 km east of the start line.
4. New north-south balance: $-1 + 1 = 0$, meaning exactly level with the start line, no north-south offset left.

With a 0 km north-south offset and a 1 km east offset, the straight-line distance from the start is simply 1 km, since one of the two components is zero.

So the correct answer is option C, 1 km.

Quick Tip: After the extra move the north-south offset cancels to zero, leaving only a 1 km east-west gap.

• • •

. Instructions: A numerical machine accepts two values X and Y . At every step, it updates the values as $X = X \text{ times } Y$, and $Y = Y + 1$. The machine stops as soon as X becomes greater than or equal to N .

For $X = 3$, $Y = 2$ and $N = 100$, how many steps are performed before the machine stops?

- (A) 2
- (B) 3
- (C) 4
- (D) 5

Correct Answer: (C) 4

SOLUTION:

It helps to lay this out as a small table, tracking X and Y together after each update.

1. Start: $X = 3, Y = 2$.
2. After step 1: $X = 3 \times 2 = 6, Y = 2 + 1 = 3$.
3. After step 2: $X = 6 \times 3 = 18, Y = 3 + 1 = 4$.
4. After step 3: $X = 18 \times 4 = 72, Y = 4 + 1 = 5$.
5. After step 4: $X = 72 \times 5 = 360, Y = 5 + 1 = 6$.

At the end of step 4, $X = 360$, which is the first time X reaches or crosses 100, so the machine halts right there.

So the correct answer is option C, 4 steps.

Quick Tip: Multiply X by Y, then add 1 to Y, and stop the moment X reaches or passes 100.

• • •

. Instructions: A numerical machine accepts two values X and Y . At every step, it updates the values as $X = X \text{ times } Y$, and $Y = Y + 1$. The machine stops as soon as X becomes greater than or equal to N .

Using the same values as the previous question ($X = 3$, $Y = 2$, $N = 100$), what is the final value of X ?

- (A) 6
- (B) 20
- (C) 72
- (D) 360

Correct Answer: (D) 360

SOLUTION:

Since the machine only stops once X crosses 100, the final X value is simply whatever X becomes on the very last step that was run.

1. The steps produced X values of 6, 18, 72 and then 360, in that order.
2. The stopping rule triggers as soon as X is at least 100, and 360 is the first value in this sequence to satisfy that, since 72 is still below 100.

So the machine's last computed value of X , and hence its final value, is 360.

The correct answer is option D.

Quick Tip: The final X is the value at the exact step where X first reaches or crosses 100.



. Instructions: A numerical machine accepts two values X and Y . At every step, it updates the values as $X = X \text{ times } Y$, and $Y = Y + 1$. The machine stops as soon as X becomes greater than or equal to N .

Using the same values as before ($X = 3$, $Y = 2$, $N = 100$), what is the final value of Y ?

- (A) 4
- (B) 5
- (C) 6
- (D) 20

Correct Answer: (C) 6

SOLUTION:

Since Y simply increases by 1 on every step, its final value is just 2 (the starting value) plus the total number of steps performed.

1. The machine was already shown to run for exactly 4 steps before stopping.
2. Starting Y is 2, so after 4 increments, Y becomes $2 + 4 = 6$.

This matches the step-by-step tracking exactly.

So the correct answer is option C, 6.

Quick Tip: Y simply increases by 1 each step, so its final value is the starting Y plus the number of steps run.



. Instructions: A numerical machine accepts two values X and Y . At every step, it updates the values as $X = X \text{ times } Y$, and $Y = Y + 1$. The machine stops as soon as X becomes greater than or equal to N .

Starting again from $X = 3$, $Y = 2$, if the value of N is changed to 500, what would be the final value of X ?

- (A) 360
- (B) 500
- (C) 560
- (D) 2160

Correct Answer: (D) 2160

SOLUTION:

Raising N from 100 to 500 only matters if $X = 360$ (the value that satisfied the old N) is still below the new threshold, so we check that first.

1. 360 is less than 500, so the machine does not stop at step 4 this time and must continue.
2. Step 5 multiplies X by the current Y (6): $360 \times 6 = 2160$, and Y becomes 7.
3. 2160 is well past 500, so the machine halts at this step.

So the final value of X , once N is raised to 500, is 2160.

The correct answer is option D.

Quick Tip: 360 is below the new threshold of 500, so the machine needs one more step, taking X to 2160.

. Instructions: A numerical machine accepts two values X and Y . At every step, it updates the values as $X = X \text{ times } Y$, and $Y = Y + 1$. The machine stops as soon as X becomes greater than or equal to N .

If $X = 2$ and $Y = 3$, what should be the minimum value of N (from the options given) such that the final value of Y is 7?

- (A) 300
- (B) 360
- (C) 720
- (D) 860

Correct Answer: (A) 300

SOLUTION:

Instead of testing each option separately, it helps to first pin down exactly which range of N values makes Y stop at 7, and then just read off the smallest option inside that range.

1. Running the machine gives X values of 6, 24, 120 and 720 after 1, 2, 3 and 4 steps, with Y reaching 4, 5, 6 and 7 respectively.
2. Y becomes 7 only if the machine runs exactly 4 steps, which needs X to still be below N after step 3 ($X = 120$) but at or above N after step 4 ($X = 720$).
3. This means N must be strictly more than 120 and at most 720.
4. Checking the four options against $120 < N \leq 720$: 300 fits, 360 fits, 720 fits (right at the boundary), and 860 does not fit since it is above 720.

Of the values that fit, 300 is the smallest.

So the correct answer is option A, 300.

Quick Tip: Y reaches 7 only if the machine stops exactly at step 4, which needs N strictly above 120 and at most 720.

• • •

. Instructions: Seven students, Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky, take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time, either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

If Sunil is ranked sixth and Ankit is ranked fifth, which of the following can be true?

- (A) Vicky is ranked first or fourth
- (B) Raman is ranked second or third
- (C) Tony is ranked fourth or fifth
- (D) Deepak is ranked third or fourth

Correct Answer: (D) Deepak is ranked third or fourth

SOLUTION:

This puzzle is easiest to manage by first locking down every rank that is forced, and only then checking each option against what is left open.

1. Sunil at sixth rules out the “Sunil highest” branch, so Raman must be first and Tony must be seventh. These two ranks are now fixed and cannot change.
2. Ankit is fifth and Sunil is sixth, both given directly.

3. That leaves ranks 2, 3 and 4 for Vicky, Priya and Deepak, with the fixed requirement that Vicky ranks better than Priya (since Vicky always outscores Priya).
4. **Vicky first or fourth:** rank 1 belongs to Raman, and Vicky can never be pushed to fourth because Priya would then have nowhere worse to sit within the remaining slots; impossible.
5. **Raman second or third:** Raman's rank is locked at 1 in this branch; impossible.
6. **Tony fourth or fifth:** Tony's rank is locked at 7 in this branch; impossible.
7. **Deepak third or fourth:** with Vicky and Priya taking any two of {2, 3, 4} in the right order, Deepak simply takes whichever slot is left, and that can genuinely be 3 or 4 depending on the arrangement; possible.

Only the option about Deepak survives.

So the correct answer is option D.

Quick Tip: Sunil at sixth forces Raman to first and Tony to seventh; only Deepak's rank among {2,3,4} is left flexible.

• • •

. Instructions: Seven students, Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky, take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time, either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

If Raman gets the highest score, Vicky should be ranked not lower than:

- (A) Second
- (B) Third
- (C) Fourth
- (D) Fifth

Correct Answer: (C) Fourth

SOLUTION:

Since we want the worst possible rank for Vicky, it helps to think of this as “using up” the best available slots on students who don't need to beat her, and see how far down Vicky can be squeezed.

1. Raman-highest fixes Raman at rank 1 and Tony at rank 7, leaving ranks 2 through 6 open.
2. Sunil and Deepak have no ordering rule tying them to Vicky, Priya or Ankit, so they can freely take the two best open ranks, 2 and 3, to push everyone else down as far as possible.
3. That leaves ranks 4, 5, 6 for Vicky, Priya, Ankit, and the rule Vicky better than Priya better than Ankit forces this exact order: Vicky-4, Priya-5, Ankit-6.
4. Trying to push Vicky down even further, say to rank 5, would need both Priya and Ankit to fit into rank 6 alone, which is impossible for two people.

So rank 4 is the worst Vicky can ever be pushed to under these rules. The correct answer is option C, fourth.

Quick Tip: Give the best free ranks to Sunil and Deepak first; Vicky, Priya, Ankit then must fill the remaining three ranks in that fixed order.

. Instructions: Seven students, Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky, take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time, either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

If Raman is ranked second and Ankit is ranked first, which of the following must be true?

- (A) Sunil is ranked third
- (B) Tony is ranked third
- (C) Priya is ranked sixth
- (D) None of these

Correct Answer: (D) None of these

SOLUTION:

Before checking any of the answer options, it is worth testing whether the scenario described in the question can even happen under the puzzle's rules.

1. The puzzle fixes that Vicky always outscores Priya, and Priya always outscores Ankit, so Priya must always sit at a better rank than Ankit.
2. The question sets Ankit at rank 1, which is the best rank there is.
3. For Priya to still outscore Ankit, Priya would need a rank better than 1, which does not exist.

This means the situation described (Ankit ranked first) directly breaks one of the puzzle's fixed rules, so it is not a valid scenario at all. Since

the premise itself is inconsistent, none of the specific claims about Sunil, Tony or Priya's rank can be treated as guaranteed conclusions. So the correct answer is option D, none of these.

Quick Tip: Ankit ranked first would break the fixed rule that Priya always outscores Ankit, since no rank can beat first place.

• • •

. Instructions: Seven students, Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky, take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time, either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

If Sunil is ranked second, which of the following can be true?

- (A) Deepak gets more than Vicky
- (B) Vicky gets more than Sunil
- (C) Priya gets more than Raman
- (D) Priya gets more than Vicky

Correct Answer: (A) Deepak gets more than Vicky

SOLUTION:

With Sunil fixed at rank 2, the “Sunil highest” branch is ruled out immediately, so the fixed points here are Raman-1, Sunil-2 and Tony-7, leaving ranks 3-6 for Vicky, Priya, Ankit and Deepak.

1. **Deepak beats Vicky:** Deepak has no ordering rule tying him to Vicky, so placing him ahead of her (say at rank 3, with Vicky,

Priya, Ankit filling 4, 5, 6 in the required order) is a perfectly valid arrangement.

2. **Vicky beats Sunil:** Vicky is stuck within ranks 3-6, all worse than Sunil's rank 2, so this can never happen.
3. **Priya beats Raman:** Priya is also stuck within ranks 3-6, all worse than Raman's rank 1, so this can never happen.
4. **Priya beats Vicky:** This directly contradicts the fixed rule that Vicky always scores more than Priya, so it can never happen.

Only the first option is achievable under the puzzle's rules.

So the correct answer is option A.

Quick Tip: Sunil at second forces Raman-1 and Tony-7; only Deepak is free to rank ahead of Vicky among the rest.

• • •

. Instructions: Seven students, Priya, Ankit, Raman, Sunil, Tony, Deepak and Vicky, take a series of tests. No two students get similar marks. Vicky always scores more than Priya. Priya always scores more than Ankit. Each time, either Raman scores the highest and Tony gets the least, or alternatively Sunil scores the highest and Deepak or Ankit scores the least.

If Vicky is ranked fifth, which of the following must be true?

- (A) Sunil scores the highest
- (B) Raman is ranked second
- (C) Tony is ranked third
- (D) Ankit is ranked second

Correct Answer: (A) Sunil scores the highest

SOLUTION:

The key move here is to notice that Vicky at fifth leaves only two ranks (sixth and seventh) worse than her, and both Priya and Ankit need a worse rank than Vicky, which pins them down completely.

1. Priya and Ankit must take ranks 6 and 7, and since Priya must beat Ankit, the order is fixed as Priya-6, Ankit-7.
2. With Ankit already sitting at rank 7, there is no room left for Tony to also be at rank 7, so the “Raman highest, Tony least” branch cannot be the one in play here.
3. That leaves only the other branch: Sunil highest, with Deepak or Ankit at the least rank. Since Ankit already satisfies the “least” part at rank 7, this branch is confirmed active, and its other half, Sunil at rank 1, is therefore forced to be true as well.
4. Raman, Tony and Deepak simply share the remaining ranks 2, 3 and 4 with no further ordering rule among them, so no single one of them is pinned to an exact rank.

Only the claim about Sunil scoring the highest is guaranteed.

So the correct answer is option A.

Quick Tip: Vicky at fifth forces Priya-6 and Ankit-7, which rules out Tony being the “least” student and forces Sunil to be the highest instead.

• • •

. In 2002, according to a news poll, 36% of voters leaned toward party “Y”. In 2004, this figure rose to 46%. But in another survey the percentage was down to 40%. Therefore, party “Z” is likely to win the next election. Which of the following, if true, would seriously weaken the above conclusion?

- (A) People tend to switch their votes at the last minute.
- (B) It has been shown that 85% of the voters belonging to party “Y” vote in an election, compared to 80% of the voters belonging to party “Z”.
- (C) 35% of people favour party “Z”.
- (D) No one can predict how people will vote.

Correct Answer: (C) 35% of people favour party “Z”.

SOLUTION:

Step 1: Understanding the Concept.

To weaken a conclusion that “Z will win because Y's support fell”, the strongest attack is a fact that directly shows Z is not actually ahead.

Step 2: Check option A.

Last-minute vote switching could help either party, so it does not target the conclusion specifically.

Step 3: Check option B.

Higher turnout among Y's voters compared to Z's voters, if anything, supports Y doing relatively better, but it does not give us the actual support numbers for Z, so it is an indirect and weaker point.

Step 4: Check option C.

If only 35% of people favour Z while Y still holds 40%, Z is behind Y, not ahead, which directly contradicts the idea that Z is “likely to win”. This is the most direct challenge to the conclusion.

Step 5: Check option D.

A vague statement about unpredictability does not specifically address the Y versus Z comparison.

Step 6: Final Answer.

Option C gives the clearest, most direct contradiction of the stated conclusion, so it is correct.

Quick Tip: The strongest weakener directly compares Z's own support to Y's remaining support, not a vague point about unpredictability.

• • •

. Inflation rose by 5% over the second quarter, by 4% during the first quarter, and higher than the 3% recorded during the same time last year. However, the higher price index did not seem to alarm the National Stock Index, as stock prices remained steady. Which of the following, if true, could explain the reaction of the National Stock Index?

- (A) RBI announced that it will take necessary corrective measures.
- (B) Stock prices were steady because of a fear that inflation would continue.
- (C) Economists warned that inflation would continue.
- (D) Much of the quarterly increase in the price level was due to a summer drought effect on food prices.

Correct Answer: (D) Much of the quarterly increase in the price level was due to a summer drought effect on food prices.

SOLUTION:

Step 1: Understanding the Concept.

We need a reason that makes rising inflation look temporary or non-threatening, since that is what would keep stock prices steady.

Step 2: Check option A.

A promised future RBI action does not by itself explain calm in the present, since the action has not happened yet.

Step 3: Check option B.

Fear of continuing inflation is normally something that would unsettle markets, not steady them, so this option contradicts itself.

Step 4: Check option C.

A warning that inflation will continue should make investors nervous, not calm, so it fails to explain the steady prices.

Step 5: Check option D.

A drought is a one-time, temporary weather event. If most of the price rise traces back to it, investors have good reason to expect prices to normalise once the drought ends, explaining why they are not alarmed.

Step 6: Final Answer.

Option D gives the clearest reason for the market's calm reaction, so it is correct.

Quick Tip: Look for a reason that makes the inflation spike look temporary, since that is what would keep investors calm.

• • •

. Pick the appropriate analogy.

Birth : Dirge

- (A) Sunset : Sunrise
- (B) Security check : Arrival
- (C) Marriage : Alimony
- (D) Welcome address : Vote of thanks

Correct Answer: (C) Marriage : Alimony

SOLUTION:

The safest way to solve an analogy question is to write out the exact relationship in a full sentence first, then test each option against that sentence.

1. Relationship: "A dirge is performed at death, which is the opposite of birth."
2. **Sunset : Sunrise:** These are just two opposite events with nothing performed at one because of the other, so the sentence does not fit.
3. **Security check : Arrival:** A security check is linked to arrival itself, not to arrival's opposite, so the sentence does not fit.
4. **Marriage : Alimony:** Testing the sentence: "Alimony is paid at divorce, which is the opposite of marriage." This fits perfectly, since divorce is indeed the ending or opposite of marriage.
5. **Welcome address : Vote of thanks:** Both occur at the same event (like a ceremony), not at each other's opposite, so the sentence does not fit.

Only option C matches the exact relationship pattern.

So the correct answer is option C.

Quick Tip: A dirge is performed at death, the opposite of birth; look for a pair where the second thing happens at the opposite of the first.

• • •

. Beautiful beaches attract people, no doubt about it. Just look at this city's beautiful beaches, which are among the most overcrowded beaches in the state. Which of the following exhibits a pattern of reasoning most similar to the one exhibited in the argument above?

(A) Moose and bear usually appear at the same drinking hole at the same time of day. Therefore, moose and bear must grow thirsty at about the same time.

(B) Children who are scolded severely tend to misbehave more often than other children. Hence if a child is not scolded severely that child is less likely to misbehave.

(C) This software programme helps increase the work efficiency of its users. As a result, these users have more free time for other activities.

(D) During warm weather my dog suffers from fleas more than during cooler weather. Therefore, fleas must thrive in a warm environment.

Correct Answer: (D) During warm weather my dog suffers from fleas more than during cooler weather. Therefore, fleas must thrive in a warm environment.

SOLUTION:

The trick in these “similar reasoning” questions is to describe the original argument's shape in the most generic terms possible, then match that shape, not the topic, against each option.

1. **Shape of the original:** one particular case (this city's beaches) is used as proof of a general claim (beautiful beaches attract crowds everywhere).
2. **Moose and bear option:** infers a shared underlying cause (thirst timing) from an observed pattern, a different shape (correlation to cause).
3. **Scolding option:** takes a stated correlation and reverses it into a new claim about the opposite condition, another different shape.
4. **Software option:** states a cause and directly claims its effect, a simple two-step cause-effect claim, not a generalisation from an example.
5. **Dog and fleas option:** takes one specific case (my dog in warm weather) and generalises it into a broad claim about fleas in general, which is exactly the same single-example-to-sweeping-general-rule shape as the beach argument.

Only the flea option matches the original argument's structure.

So the correct answer is option D.

Quick Tip: Look for the option that also jumps from one specific personal example straight to a sweeping general claim.

• • •

. No national productivity measures are available for underground industries that may exist but remain unreported. On the other hand, at least some industries that are run entirely by self-employed industrialists are included in national productivity measures. From the information given above, it can be validly concluded that

- (A) there are at least some industries run entirely by self-employed industrialists that are underground industries
- (B) no industries that are run entirely by self-employed industrialists operate underground
- (C) there are at least some industries other than those run entirely by self-employed industrialists that are underground industries
- (D) there are at least some industries run entirely by self-employed industrialists that are not underground industries

Correct Answer: (D) there are at least some industries run entirely by self-employed industrialists that are not underground industries

SOLUTION:

Formal reasoning questions like this are safest when translated into simple set logic before picking an answer.

1. Statement 1 says: underground industries ⊆ industries with no productivity measure. Equivalently, having a productivity measure means you are not underground.
2. Statement 2 says: some self-employed-run industries ⊆ industries with a productivity measure.
3. Combining these two facts (the classic “some A are B, all B are not C, so some A are not C” pattern), we can validly say: some self-employed-run industries are not underground.

Checking the options against this exact derived statement: the claim that some self-employed industries ARE underground reverses the logic and is wrong; the claim that NO self-employed industries are underground overreaches beyond “at least some”; the claim about industries outside the self-employed category is simply not addressed

by the passage at all. Only the statement that some self-employed-run industries are not underground matches exactly.

So the correct answer is option D.

Quick Tip: Having a productivity measure means “not underground”; some self-employed industries have one, so some of them are not underground.

• • •

. Nilu has never received a violation from the Federal Aviation Administration during her 16-year flying career. Nilu must be a great pilot. Which of the following can be said about the reasoning above?

- (A) The definitions of the terms create ambiguity
- (B) The argument uses circular reasoning
- (C) The argument is built upon hidden assumptions
- (D) The argument works by analogy

Correct Answer: (C) The argument is built upon hidden assumptions

SOLUTION:

Whenever an argument's conclusion feels like a bigger claim than its evidence can support, the gap is usually filled by an unstated assumption, which is exactly the pattern here.

1. Evidence given: no FAA violations in 16 years.
2. Conclusion claimed: Nilu must be a great pilot.
3. For this jump to work, the argument must be silently assuming that having a clean record is the same thing as being highly

skilled, when in reality a clean record could also come from caution, luck, or limited flying hours.

Since the argument's conclusion only holds up if we accept this unstated assumption, and the argument never actually states or defends it, this fits the description of an argument built on a hidden assumption, rather than ambiguous definitions, circular restatement, or analogy to another case.

So the correct answer is option C.

Quick Tip: The argument silently assumes a clean record proves skill, without ruling out luck or limited experience.

• • •

. Many people argue that the death penalty deters murder. However, the notorious killer Tom Hanks deliberately moved to a state that imposes the death penalty just before embarking on a series of ferocious murders. Thus, it seems clear that the existence of the death penalty does not serve as a deterrent to murder. The argument above may best be characterised as:

- (A) an appeal to emotion
- (B) a flawed analogy
- (C) a general conclusion based on a specific example
- (D) circular reasoning

Correct Answer: (C) a general conclusion based on a specific example

SOLUTION:

The clue here is scale: one person's story is being used to support a claim about an entire policy's effect on all potential murderers.

1. The premise is narrow: a single killer, Tom Hanks, was not deterred.
2. The conclusion is broad: the death penalty does not deter murder in general.
3. Jumping from a sample size of one to a sweeping general rule is a textbook case of over-generalising from a specific example, not an emotional appeal, not a comparison between two situations (analogy), and not a restatement of the same claim (circular reasoning).

So the correct answer is option C, a general conclusion based on a specific example.

Quick Tip: One killer's story is used to support a sweeping claim about deterrence everywhere; that is over-generalisation from a single case.

• • •

. What number should replace the question mark? The numbers are arranged in a five-row pattern (numbers in each row, left to right):

Row 1 (3 numbers): 4, 3, 2

Row 2 (5 numbers): 5, 3, 5, 1, 1

Row 3 (7 numbers): 6, 1, 2, 8, 3, 3, 1

Row 4 (5 numbers): 7, 2, 8, 4, 3

Row 5 (3 numbers): 9, ?, 3

- (A) 1
- (B) 4
- (C) 12
- (D) 6

Correct Answer: (D) 6

SOLUTION:

A quick way to double check a number-pattern rule is to restate it as “the middle number times 2 equals the sum of the rest”, and verify it against every row before trusting it on the row with the missing value.

1. Row 1: middle $\times 2 = 3 \times 2 = 6$; sum of the rest $= 4 + 2 = 6$.
Matches.
2. Row 2: middle $\times 2 = 5 \times 2 = 10$; sum of the rest $= 5 + 3 + 1 + 1 = 10$. Matches.
3. Row 3: middle $\times 2 = 8 \times 2 = 16$; sum of the rest $= 6 + 1 + 2 + 3 + 3 + 1 = 16$. Matches.
4. Row 4: middle $\times 2 = 8 \times 2 = 16$; sum of the rest $= 7 + 2 + 4 + 3 = 16$. Matches.

The rule holds cleanly across every row of different lengths, so it can be trusted for row 5: sum of the rest $= 9 + 3 = 12$, so the middle number is $12 \div 2 = 6$.

So the correct answer is option D, 6.

Quick Tip: In every row, the middle number equals half the sum of all the other numbers in that row.



. The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions.

If the statements above are true, which of the following must be true?

- (A) Some lawyers who now advertise will charge more for specific services if they do not have to specify fee arrangements in the advertisements.
- (B) More consumers will use legal services if there are fewer restrictions on the advertising of legal services.
- (C) If the restrictions against advertisements that do not specify fee arrangements are removed, more lawyers will advertise their services.
- (D) If more lawyers advertise lower prices for specific services, some lawyers who do not advertise will also charge less than they currently charge for those services.

Correct Answer: (C) If the restrictions against advertisements that do not specify fee arrangements are removed, more lawyers will advertise their services.

SOLUTION:

“Must be true” questions are best solved by checking which option is a near word-for-word consequence of a premise already given, rather than a plausible-sounding new claim.

1. The passage's opening line is essentially: fewer restrictions & rarr; more lawyers advertise.
2. Removing the fee-arrangement-disclosure restriction is explicitly called out as an example of “removing a current restriction”.
3. Applying the opening rule to this specific example gives exactly: removing this restriction & rarr; more lawyers will advertise, which is option C.
4. The other three options each introduce a new claim (prices rising, more consumers using legal services, non-advertisers lowering prices) that the passage never actually asserts, so none of them is guaranteed by the given statements.

Only option C is a direct, guaranteed consequence of what is stated.
So the correct answer is option C.

Quick Tip: The passage’s opening rule (fewer restrictions leads to more lawyers advertising) applies directly to the fee-arrangement example given.

• • •

. The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions.

Which of the following, if true, would most seriously weaken the argument concerning overall consumer legal costs?

- (A) The state is unlikely to remove all of the restrictions that apply solely to the advertising of legal services.
- (B) Lawyers who do not advertise generally provide legal services of the same quality as those provided by lawyers who do advertise.
- (C) Most lawyers who now specify fee arrangements in their advertisements would continue to do so even if the specification were not required.
- (D) Most lawyers who advertise specific services do not lower their fees for those services when they begin to advertise.

Correct Answer: (D) Most lawyers who advertise specific services do not lower their fees for those services when they begin to advertise.

SOLUTION:

To weaken a chain-of-reasoning argument, the sharpest attack targets the one link the whole conclusion depends on, here, the claim that advertising causes lower prices.

1. The argument's chain is: fewer restrictions → more advertising → lower prices for advertised services → lower overall consumer costs.
2. **Option A** only questions how many restrictions get removed, not the price-lowering link itself.
3. **Option B** talks about service quality, a separate issue from cost.
4. **Option C** is about lawyers' voluntary behaviour on fee disclosure, not about whether advertising lowers prices.
5. **Option D** directly denies the crucial middle link: if advertising lawyers mostly do not actually lower their fees, then more advertising will not translate into lower overall costs, collapsing the argument's conclusion.

Only option D attacks the specific mechanism the conclusion depends on.

So the correct answer is option D.

Quick Tip: The argument depends on advertising actually lowering prices; look for the option that denies exactly that link.

• • •

. A train travelling at 36 kmph crosses a platform in 20 seconds and a man standing on the platform in 10 seconds. What is the length of the platform in metres?

- (A) 240 metres
- (B) 100 metres
- (C) 200 metres
- (D) 300 metres

Correct Answer: (B) 100 metres

SOLUTION:

A useful shortcut for this type of problem is to work directly with the extra distance covered because of the platform, instead of separately finding the train's length first.

1. Speed of the train in consistent units: $36 \times \frac{5}{18} = 10 \text{ m/s}$.
2. In the 20 seconds it takes to cross the platform, compared to the 10 seconds it takes to cross a man, the train travels for an extra $20 - 10 = 10$ seconds.
3. This extra distance is exactly the length of the platform, since the man is a single point but the platform has length that the train

must additionally cover.

4. Extra distance = $10 \text{ m/s} \times 10 \text{ s} = 100 \text{ m}$.

So the platform's length is 100 metres.

The correct answer is option B.

Quick Tip: Crossing a man gives the train's own length; crossing the platform gives train length plus platform length.

• • •

. By walking at $\frac{4}{5}$ of his usual speed, a man reaches office 10 minutes later than usual. What is his usual time?

- (A) 20 min
- (B) 40 min
- (C) 30 min
- (D) 50 min

Correct Answer: (B) 40 min

SOLUTION:

Instead of algebra, this can be solved by picking convenient numbers for speed and time that respect the inverse relationship.

1. Let the usual speed be 5 units and usual time be 4 units, so usual distance = $5 \times 4 = 20$ units (a fixed constant).
2. New speed is $\frac{4}{5}$ of usual, so new speed = 4 units.
3. New time = $\frac{\text{distance}}{\text{new speed}} = \frac{20}{4} = 5$ units.
4. The delay is $5 - 4 = 1$ unit of time, and this equals the given 10 minutes, so 1 unit = 10 minutes.

Usual time was 4 units = $4 \times 10 = 40$ minutes.

The correct answer is option B.

Quick Tip: If speed drops to $\frac{4}{5}$, time rises to $\frac{5}{4}$ of usual; the $\frac{1}{4}$ extra equals the given 10-minute delay.

...

. A man and a woman, 81 miles apart from each other, start travelling towards each other at the same time. If the man covers 5 miles per hour to the woman's 4 miles per hour, how far will the woman have travelled when they meet?

- (A) 27
- (B) 36
- (C) 45
- (D) None of these

Correct Answer: (B) 36

SOLUTION:

Since both people travel for the exact same amount of time before meeting, the 81 miles simply splits between them in the ratio of their speeds.

1. Speed ratio, man to woman, is 5 : 4.
2. Total parts = $5 + 4 = 9$, and the total distance of 81 miles is divided in this ratio.
3. Woman's share = $\frac{4}{9} \times 81 = 36$ miles.

This matches the time-based calculation exactly.

So the correct answer is option B, 36 miles.

Quick Tip: Since both travel for the same time, split the 81 miles in the ratio of their speeds, 5:4.

• • •

. Two people were walking in opposite directions from the same starting point. Both of them walked 6 miles forward, then took a right turn and walked 8 miles. How far is each of them from their starting position?

- (A) 14 miles and 14 miles
- (B) 10 miles and 10 miles
- (C) 6 miles and 6 miles
- (D) 12 miles and 12 miles

Correct Answer: (B) 10 miles and 10 miles

SOLUTION:

Since the two legs of each person's walk (6 miles, then 8 miles after a right turn) are perpendicular to each other, this is really just a right-triangle distance problem repeated twice.

1. Recognise the 6, 8 legs as the two perpendicular sides of a right triangle, with the straight-line distance back to start as the hypotenuse.
2. Notice that 6, 8, 10 is a Pythagorean triple ($6^2 + 8^2 = 36 + 64 = 100 = 10^2$), so the hypotenuse is exactly 10 without needing a calculator.
3. Since both people follow the identical pattern of moves (just mirrored in overall direction), the same 10-mile result applies to

each of them independently.

So the correct answer is option B, 10 miles and 10 miles.

Quick Tip: 6 and 8 are the legs of a right triangle; recognise the 6-8-10 Pythagorean triple.

• • •

. Four men and three women can do a job in 6 days. When 5 men and 6 women work on the same job, the work gets completed in 4 days. How long will 2 women and 3 men take to do the job?

- (A) 18
- (B) 10
- (C) 8.3
- (D) 12

Correct Answer: (C) 8.3

SOLUTION:

Working in terms of a woman's daily rate as the base unit keeps the arithmetic simple throughout.

1. From the two given equations, $(4M + 3W) \times 6 = (5M + 6W) \times 4$ simplifies to $4M = 6W$, so one man does the work of 1.5 women per day.
2. Rewrite the first team's rate purely in women-units: $4M + 3W = 4(1.5W) + 3W = 9W$ per day, and over 6 days that totals $54W$ units of work.
3. Rewrite the target team's rate: $2W + 3M = 2W + 3(1.5W) = 6.5W$ per day.

$$4. \text{ Days needed} = \frac{54W}{6.5W} = \frac{540}{65} = \frac{108}{13} \approx 8.3 \text{ days.}$$

So the correct answer is option C, 8.3 days.

Quick Tip: Convert everything to a woman's daily rate using $2M = 3W$, then divide total work by the new team's combined rate.

• • •

. Ram completes 60% of a task in 15 days and then takes the help of Rahim and Rachel. Rahim is 50% as efficient as Ram, and Rachel is 50% as efficient as Rahim. In how many more days will they complete the work?

- (A) $121/3$
- (B) $51/7$
- (C) $40/7$
- (D) $65/7$

Correct Answer: (C) $40/7$

SOLUTION:

It helps to express every rate as a simple fraction of Ram's rate from the start, avoiding decimals.

1. Ram's rate: 1 unit (of Ram's own daily output).
2. Rahim's rate: half of Ram's, so $\frac{1}{2}$.
3. Rachel's rate: half of Rahim's, so $\frac{1}{4}$.
4. Combined daily rate = $1 + \frac{1}{2} + \frac{1}{4} = \frac{7}{4}$ (in units of Ram's daily rate).
5. Since Ram finishes 60% of the job in 15 days, his daily rate is $\frac{60\%}{15} = 4\%$ of the job per day, and 40% of the job remains.

$$6. \text{ Days needed by all three together} = \frac{40\%}{\frac{7}{4} \times 4\%} = \frac{40\%}{7\%} = \frac{40}{7} \text{ days.}$$

So the correct answer is option C, 40/7 days.

Quick Tip: Ram's daily rate is 4% of the job; the combined rate of all three is 7% of the job per day, and 40% remains.

...

. A and B can do a piece of work in 21 and 24 days respectively. They start the work together, and after some days A leaves the work, and B completes the remaining work in 9 days. After how many days did A leave?

- (A) 5
- (B) 7
- (C) 8
- (D) 6

Correct Answer: (B) 7

SOLUTION:

Working backward from B's final solo stretch is a clean way to isolate the joint working period.

1. Total work in convenient units: $\text{LCM}(21, 24) = 168$, giving A a rate of 8 units/day and B a rate of 7 units/day.
2. In B's last 9 days working alone, B completes $9 \times 7 = 63$ units.
3. So the joint work done before A left must be $168 - 63 = 105$ units.
4. Working together, A and B complete $8 + 7 = 15$ units per day, so the joint period lasted $\frac{105}{15} = 7$ days.

So the correct answer is option B, 7 days.

Quick Tip: Find what B alone did in the last 9 days first, then divide the rest by their combined daily rate.

...

. A trader makes a profit equal to the selling price of 75 articles when he sells 100 of the articles. What percentage profit did he make in the transaction?

- (A) 33.33%
- (B) 75%
- (C) 300%
- (D) 150%

Correct Answer: (C) 300%

SOLUTION:

Picking a convenient cost price makes this quick to verify with real numbers.

1. Suppose the cost price of one article is Rs. 1, so 100 articles cost Rs. 100.
2. We are told the profit on 100 articles equals the selling price of 75 articles, so if the selling price per article is s , then profit = $75s$.
3. Also, profit = total selling price – total cost price = $100s - 100$.
4. Setting these equal: $75s = 100s - 100 \Rightarrow 100 = 25s \Rightarrow s = 4$.
5. So each article sells for Rs. 4 against a cost of Rs. 1, a profit of Rs. 3 on every Rs. 1 spent, which is 300%.

So the correct answer is option C, 300%.

Quick Tip: Set profit = 75 times the per-unit SP and total revenue = 100 times the per-unit SP, then solve for SP in terms of CP.

...

. In a 100 m race, if A gives B a start of 20 metres, then A wins the race by 5 seconds. Alternatively, if A gives B a start of 40 metres, the race ends in a dead heat. How long does A take to run 200 m?

- (A) 10 seconds
- (B) 20 seconds
- (C) 30 seconds
- (D) 40 seconds

Correct Answer: (C) 30 seconds

SOLUTION:

Both conditions describe B's speed in two different ways, so equating them is the natural way to solve this.

1. Dead heat with a 40 m start means B's 60 m matches A's 100 m in time, so B's speed is $\frac{60}{100} = 0.6$ times A's speed.
2. With a 20 m start, B covers 80 m while A covers 100 m in t seconds, but B needs $t + 5$ seconds for those 80 m, since A wins by 5 seconds.
3. Using the speed ratio: B's speed = $0.6 \times \frac{100}{t}$, and this must equal $\frac{80}{t+5}$.
4. $0.6 \times \frac{100}{t} = \frac{80}{t+5} \Rightarrow \frac{60}{t} = \frac{80}{t+5} \Rightarrow 60t + 300 = 80t \Rightarrow t = 15$.

5. A's speed = $\frac{100}{15} = \frac{20}{3}$ m/s, so time for 200 m = $\frac{200}{20/3} = 30$ seconds.

So the correct answer is option C, 30 seconds.

Quick Tip: The dead-heat case gives B's speed as a fixed fraction of A's speed; combine that with the 5-second-win case to solve for A's 100 m time.

...

. A 4 cm cube is cut into 1 cm cubes. What is the percentage increase in the surface area after such cutting?

- (A) 4%
- (B) 300%
- (C) 75%
- (D) 400%

Correct Answer: (B) 300%

SOLUTION:

Instead of computing both surface areas fully, a quicker route uses the fact that cutting a cube of side n into unit cubes multiplies the total surface area by exactly n .

1. Here the big cube has side 4, so it is cut into $4^3 = 64$ unit cubes.
2. Cutting a cube of side n into 1 cm cubes always multiplies total surface area by a factor of n , since surface area scales as (number of cubes) $\times$ (area per small face), and the small-cube count grows as n^3 while each small cube's area is $1/n^2$ of what a same-fraction big-cube face would be; the net multiplier works out to exactly n .

3. With $n = 4$, the new surface area is 4 times the original, meaning it grew by a factor of 4, i.e. by an extra 3 times the original, which is a 300% increase.

This matches the direct calculation exactly.

So the correct answer is option B, 300%.

Quick Tip: Cutting a side-4 cube into unit cubes multiplies the total surface area by exactly 4, a 300% increase.

• • •

. A number G236Go can be divided by 36 if G is:

- (A) 8
- (B) 6
- (C) 1
- (D) More than one value is possible

Correct Answer: (A) 8

SOLUTION:

Rather than testing every digit blindly, it helps to first narrow down the candidates using the easier rule (divisibility by 4) before applying the digit-sum rule for 9.

1. Divisibility by 4 depends only on the last two digits, “Go”. Since any digit followed by 0 gives a multiple of 10, and every multiple of 20 is also a multiple of 4, in fact Go is divisible by 4 for every digit G from 0 to 9 that is even; but since Go must also just be a two-digit multiple of 4 in general, this check does not narrow

things down much on its own, so the deciding test is really the digit-sum rule for 9.

2. Digit sum = $G + 2 + 3 + 6 + G + 0 = 2G + 11$.

3. Testing G from 0 to 9, only $G = 8$ gives $2(8) + 11 = 27$, a clean multiple of 9.

So the only value of G that works is 8.

The correct answer is option A.

Quick Tip: $36 = 9 \times 4$; use the digit-sum rule for 9 on $11 + 2G$ to narrow G down to a single value.

...

. Amit can do a work in 12 days and Sagar in 15 days. If they work on it together for 4 days, then the fraction of the work that is left is:

(A) $\frac{3}{20}$

(B) $\frac{3}{5}$

(C) $\frac{2}{5}$

(D) $\frac{2}{20}$

Correct Answer: (C) $\frac{2}{5}$

SOLUTION:

Working directly with fractions of the job avoids picking an LCM at all.

1. In one day, Amit does $\frac{1}{12}$ of the work and Sagar does $\frac{1}{15}$ of the work.

2. Together, in one day they do $\frac{1}{12} + \frac{1}{15} = \frac{5}{60} + \frac{4}{60} = \frac{9}{60} = \frac{3}{20}$ of the work.
3. In 4 days, they complete $4 \times \frac{3}{20} = \frac{12}{20} = \frac{3}{5}$ of the work.
4. The fraction left is $1 - \frac{3}{5} = \frac{2}{5}$.

So the correct answer is option C, $\frac{2}{5}$.

Quick Tip: Find the combined daily fraction of work, multiply by 4 days, then subtract from 1.

...

. A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park, and the rest of the park is used as a lawn. If the area of the lawn is 2109 sq. m, what is the width of the road?

- (A) 2.91 m
- (B) 3 m
- (C) 5.82 m
- (D) None of these

Correct Answer: (B) 3 m

SOLUTION:

This problem is a classic “overlap subtraction” setup, so it helps to picture the two crossroads as two long rectangles that share a small square patch in the middle.

1. One road, running along the length, has area $60x$; the other, running along the width, has area $40x$; but the small central square of area x^2 where they cross has been counted in both, so it must be subtracted once.

2. Total road area = $60x + 40x - x^2 = 100x - x^2$, and this equals 291.
3. Rearranging: $x^2 - 100x + 291 = 0$.
4. The quadratic factors neatly as $(x - 3)(x - 97) = 0$, giving roots 3 and 97.
5. Since the road cannot be wider than the park itself (40 m), only $x = 3$ makes physical sense.

So the correct answer is option B, 3 m.

Quick Tip: Road area = $60x + 40x - x^2$ (subtracting the double-counted central overlap square); solve the resulting quadratic and reject the unrealistic root.

• • •

. A bag contains 5 white and 3 black balls; another bag contains 4 white and 5 black balls. From any one of these bags, a single draw of two balls is made. Find the probability that one of them would be white and the other black.

- (A) $275/504$
- (B) $5/18$
- (C) $5/9$
- (D) None of these

Correct Answer: (A) $275/504$

SOLUTION:

This is a two-stage probability problem: first pick a bag, then draw two balls of different colours from it, so the total probability rule

applies directly.

1. Bag 1 has 8 balls; ways to pick any 2 is $\binom{8}{2} = 28$; ways to pick 1 white and 1 black is $5 \times 3 = 15$; so $P(\text{different colours} \mid \text{Bag 1}) = \frac{15}{28}$.
2. Bag 2 has 9 balls; ways to pick any 2 is $\binom{9}{2} = 36$; ways to pick 1 white and 1 black is $4 \times 5 = 20$; so $P(\text{different colours} \mid \text{Bag 2}) = \frac{20}{36} = \frac{5}{9}$.
3. Since each bag is chosen with probability $\frac{1}{2}$, total probability $= \frac{1}{2} \left(\frac{15}{28} + \frac{5}{9} \right)$.
4. Finding a common denominator of 252: $\frac{15}{28} = \frac{135}{252}$ and $\frac{5}{9} = \frac{140}{252}$, summing to $\frac{275}{252}$.
5. Halving gives $\frac{275}{504}$.

So the correct answer is option A, $275/504$.

Quick Tip: Use total probability: average the “1 white, 1 black” probability from each bag, each weighted by $1/2$.

...

. Instructions: The following bar graph gives the production, exports and per-capita consumption of rice in country A, for the five years from 2006 to 2010 (Production and Exports in million kg; Per capita in kg).

Consumption = Production - Exports. Per Capita Consumption = Consumption $\div$ Population.

Year-wise data read from the chart: Production (2006-2010): 192.5, 208, 238, 225, 207 million kg. Exports (2006-2010): 120, 120, 130, 120, 80 million kg. This gives Consumption (2006-2010): 72.5, 88, 108, 105, 127 million kg.

In which year was the percentage increase in the consumption of rice over the previous year the highest?

- (A) 2007
- (B) 2008
- (C) 2009
- (D) 2010

Correct Answer: (B) 2008

SOLUTION:

Since all four year-on-year changes need to be compared, it is enough to rank the absolute jumps first and then verify the largest one as a percentage.

1. Consumption jumps: 2006 to 2007 is +15.5; 2007 to 2008 is +20; 2008 to 2009 is -3 (a fall); 2009 to 2010 is +22.
2. The 2009-to-2010 jump (+22) is numerically the largest, but it is measured against a bigger base (105), while the 2007-to-2008 jump (+20) is measured against a smaller base (88), so the

percentages need to be checked directly rather than assumed from the raw jump size.

3. $\frac{20}{88} \approx 22.7\%$ versus $\frac{22}{105} \approx 21.0\%$: the smaller raw jump (2008) actually gives the bigger percentage increase because its base year value was smaller.

So the correct answer is option B, 2008.

Quick Tip: A smaller raw increase can still be the largest percentage increase if it started from a smaller base; check 2008 against 2010 carefully.

• • •

. Instructions: The following bar graph gives the production, exports and per-capita consumption of rice in country A, for the five years from 2006 to 2010. Consumption = Production - Exports. Per Capita Consumption = Consumption ÷ Population.

Reading the chart precisely gives this table:

2006: Consumption = 72.5 million kg, Per-capita consumption = 36.25 kg

2007: Consumption = 88 million kg, Per-capita consumption = 35.2 kg

2008: Consumption = 108 million kg, Per-capita consumption = 38.7 kg

2009: Consumption = 105 million kg, Per-capita consumption = 40.5 kg

2010: Consumption = 127 million kg, Per-capita consumption = 42 kg

What is the population of country A in the year 2008 (in million)?

- (A) 2.64 million
- (B) 2.72 million
- (C) 2.79 million
- (D) 2.85 million

Correct Answer: (C) 2.79 million

SOLUTION:

This is a direct rearrangement of the per-capita formula, so the key is just to divide the right two numbers from the chart for the correct year.

1. Per capita consumption is defined as consumption divided by population, so population is consumption divided by per-capita consumption.
2. For 2008, consumption is 108 million kg and per-capita consumption is 38.7 kg.
3. Population = $\frac{108}{38.7} \approx 2.79$ million.

So the correct answer is option C, 2.79 million.

Quick Tip: Population = Consumption divided by per-capita consumption, using the 2008 figures.

• • •

. Instructions: The following bar graph gives the production, exports and per-capita consumption of rice in country A, for the five years from 2006 to 2010 (Production and Exports in million kg). Consumption = Production - Exports.

Reading the chart: Exports (2006-2010) = 120, 120, 130, 120, 80 million kg. Consumption (2006-2010) = 72.5, 88, 108, 105, 127 million kg.

The ratio of exports to consumption in the given period was the highest in the year

- (A) 2006
- (B) 2007
- (C) 2008
- (D) 2009

Correct Answer: (A) 2006

SOLUTION:

Instead of computing every ratio precisely, a quick comparison of exports against consumption for each year shows the pattern clearly.

1. In 2006, exports (120) are close to double the consumption (72.5), a very high ratio.
2. In 2007, exports (120) are still more than consumption (88), but by a smaller margin.
3. By 2008 and 2009, exports (130, 120) are only slightly above consumption (108, 105), so the ratio keeps shrinking toward 1.
4. By 2010, exports (80) are well below consumption (127), giving a ratio under 1.

The gap between exports and consumption is largest, relatively speaking, in 2006, giving it the highest ratio.

So the correct answer is option A, 2006.

Quick Tip: Exports are largest relative to consumption in the earliest year, 2006, where exports are nearly double the consumption.

• • •

. Instructions: The following bar graph gives the production, exports and per-capita consumption of rice in country A, for the five years from 2006 to 2010. Consumption = Production - Exports. Per Capita Consumption = Consumption ÷ Population.

Reading the chart precisely gives this table:

2006: Consumption = 72.5, Per-capita = 36.25, Population = 2.00 million

2007: Consumption = 88, Per-capita = 35.2, Population = 2.5 million

2008: Consumption = 108, Per-capita = 38.7, Population = 2.79 million

2009: Consumption = 105, Per-capita = 40.5, Population = 2.59 million

2010: Consumption = 127, Per-capita = 42, Population = 3.02 million

In which of the given years was the population of country A the highest?

(A) 2007

(B) 2008

(C) 2009

(D) 2010

Correct Answer: (D) 2010

SOLUTION:

Since population is consumption divided by per-capita consumption for every year, comparing all five years just means computing this ratio five times and picking the largest.

1. 2006: $72.5/36.25 = 2.00$

2. 2007: $88/35.2 = 2.50$

3. 2008: $108/38.7 \approx 2.79$

4. 2009: $105/40.5 \approx 2.59$

5. 2010: $127/42 \approx 3.02$

The value for 2010 is clearly the largest of the five.

So the correct answer is option D, 2010.

Quick Tip: Divide each year's consumption by its per-capita consumption and compare all five results.

• • •

. Instructions: The following pie chart shows the hourly distribution in a day (in degrees) of all the major activities of a student. A day has 24 hours. The pie chart shows: Games 30° , Home work 45° , School 105° , Sleeping 120° , Others 60° ; (total 360°).

The percentage of time which he spends in school is:

- (A) 38%
- (B) 30%
- (C) 40%
- (D) 25%

Correct Answer: (B) 30%

SOLUTION:

Since the chart already gives each activity's share as a fraction of the full 360° circle, converting to a percentage is a single division.

1. School takes up 105° out of 360° total.
2. As a fraction, this is $\frac{105}{360} = \frac{7}{24} \approx 0.2917$.
3. As a percentage, this is about 29.2%, which rounds to the closest option, 30%.

So the correct answer is option B, 30%.

Quick Tip: Percentage = (angle of the slice / 360) $\times$ 100.

...

. Instructions: The following pie chart shows the hourly distribution in a day (in degrees) of all the major activities of a student. A day has 24 hours. The pie chart shows: Games 30° , Home work 45° , School 105° , Sleeping 120° , Others 60° (total 360°).

How much time (in per cent) does he spend in games in comparison to sleeping?

- (A) 30%
- (B) 40%
- (C) 25%
- (D) None of these

Correct Answer: (C) 25%

SOLUTION:

Since both quantities come from the same chart, the 360° total cancels out entirely, and the comparison is just games-angle to sleeping-angle.

1. Games: 30° . Sleeping: 120° .
2. Ratio: $\frac{30}{120} = \frac{1}{4}$.
3. As a percentage: $\frac{1}{4} \times 100 = 25\%$.

So the correct answer is option C, 25%.

Quick Tip: Compare the two angles directly: $\text{games/sleeping} = 30/120 = 25\%$.

• • •

. Instructions: The following pie chart shows the hourly distribution in a day (in degrees) of all the major activities of a student. A day has 24 hours. The pie chart shows: Games 30° , Home work 45° , School 105° , Sleeping 120° , Others 60° (total 360°).

If he spends the time in games equal to the home work, and the other activities remain constant, what is the percentage decrease in the time spent sleeping?

- (A) 15%
- (B) 12.5%
- (C) 20%
- (D) None of these

Correct Answer: (B) 12.5%

SOLUTION:

This question is really about tracking where a 15° gain in one slice of the pie must come from, given that most of the pie is fixed.

1. Games needs to grow from 30° to 45° (matching home work), a gain of 15° .
2. Home work, School, and Others are all explicitly held constant, so they cannot supply this extra 15° .
3. Since the full circle stays at 360° , the only remaining slice, Sleeping, must shrink by exactly 15° to balance the books.

4. Sleeping's percentage drop, relative to its own original size, is $\frac{15}{120} \times 100 = 12.5\%$.

So the correct answer is option B, 12.5%.

Quick Tip: Games must gain 15° to match home work; since only sleeping is free to change, it must lose that 15° .

• • •

. Instructions: The following pie chart shows the hourly distribution in a day (in degrees) of all the major activities of a student. A day has 24 hours. The pie chart shows: Games 30° , Home work 45° , School 105° , Sleeping 120° , Others 60° ; (total 360°).

What is the difference in time (in hours) spent in school and in home work?

- (A) 2
- (B) 3
- (C) 4
- (D) 8

Correct Answer: (C) 4

SOLUTION:

Since both quantities need converting from degrees to hours, it is quicker to find the difference in degrees first and convert only once.

1. Difference in angle between School and Home work: $105^\circ - 45^\circ = 60^\circ$.
2. Convert this angle directly to hours: $60^\circ \times \frac{24}{360^\circ} = \frac{60}{15} = 4$ hours.

This gives the same result as converting each separately and subtracting.

So the correct answer is option C, 4 hours.

Quick Tip: Each degree of the pie equals $24/360 = 1/15$ of an hour; convert the 60° gap between School and Home work directly.

• • •

. Instructions: The following pie chart shows the hourly distribution in a day (in degrees) of all the major activities of a student. A day has 24 hours. The pie chart shows: Games 30° , Home work 45° , School 105° , Sleeping 120° , Others 60° ; (total 360°).

If he spends $1/3$ of the time of home work in Mathematics, then the number of hours he spends on the rest of the subjects in home work is:

- (A) 1
- (B) 2
- (C) 3
- (D) 4

Correct Answer: (B) 2

SOLUTION:

Since Mathematics takes exactly one third of the home work time, the remaining subjects must automatically take the other two thirds.

1. Total home work time: $45^\circ \times \frac{24}{360} = 3$ hours.
2. If Mathematics is $\frac{1}{3}$ of this, the rest of the subjects together take the remaining $\frac{2}{3}$.

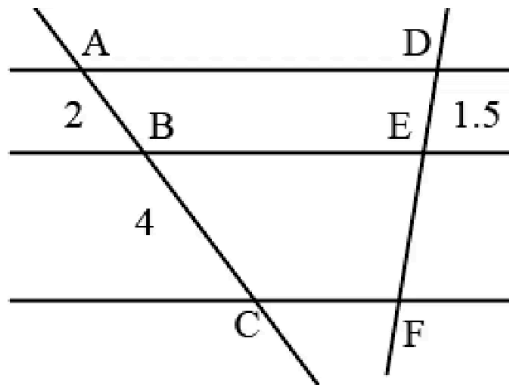
3. $\frac{2}{3} \times 3 = 2$ hours.

So the correct answer is option B, 2 hours.

Quick Tip: If Mathematics takes $\frac{1}{3}$ of the 3-hour home work time, the rest of the subjects take the other $\frac{2}{3}$, i.e. 2 hours.

...

. Three parallel lines are cut by two transversals as shown in the given figure. If $AB = 2$ cm, $BC = 4$ cm and $DE = 1.5$ cm, then the length of EF is:



- (A) 2 cm
- (B) 3 cm
- (C) 3.5 cm
- (D) 4 cm

Correct Answer: (B) 3 cm

SOLUTION:

Step 1: Understanding the Concept.

Three parallel lines cut two transversals proportionally, so the ratio of segments on one transversal must equal the ratio of the corresponding segments on the other transversal.

Step 2: Find the ratio on the first transversal.

On the transversal through A, B, C: $\frac{AB}{BC} = \frac{2}{4} = \frac{1}{2}$.

Step 3: Apply the same ratio to the second transversal.

On the transversal through D, E, F, the same ratio must hold: $\frac{DE}{EF} = \frac{1}{2}$.

Step 4: Solve for EF.

Since DE = 1.5 cm and $\frac{DE}{EF} = \frac{1}{2}$, EF must be twice DE: $EF = 2 \times 1.5 = 3$ cm.

Step 5: Final Answer.

EF is 3 cm, so option B is correct.

Quick Tip: Three parallel lines cut two transversals in the same ratio:
 $AB/BC = DE/EF$.

...

. Find the value of $\log_{10} 10 + \log_{10} 10^2 + \log_{10} 10^3 + \dots + \log_{10} 10^n$

(A) $n^2 + 1$

(B) $n^2 - 1$

(C) $\frac{n(n+1)}{3}$

(D) $\frac{n^2 + n}{2}$

Correct Answer: (D) $\frac{n^2 + n}{2}$

SOLUTION:

Recognising the log simplification early turns this into a very familiar sum.

1. Since $\log_{10}(10^k) = k$ for any power k , the whole expression collapses to $1 + 2 + 3 + \dots + n$.
2. This is the standard sum of the first n natural numbers, with a well-known closed form $\frac{n(n+1)}{2}$.
3. Expanding, this equals $\frac{n^2+n}{2}$, matching option D exactly.

So the correct answer is option D.

Quick Tip: Each $\log_{10}(10^k)$ simplifies to just k , turning the sum into $1+2+\dots+n$.

...

. The sum of a number and its reciprocal is thrice the difference of the number and its reciprocal. The number is:

- (A) $\pm\sqrt{2}$
- (B) $\frac{1}{\pm\sqrt{2}}$
- (C) $\pm\sqrt{3}$
- (D) $\frac{1}{\pm\sqrt{3}}$

Correct Answer: (A) $\pm\sqrt{2}$

SOLUTION:

Since the equation mixes a and $\frac{1}{a}$, multiplying through by a early clears the fraction and simplifies the algebra.

1. Start with $a + \frac{1}{a} = 3a - \frac{3}{a}$.
2. Move all $\frac{1}{a}$ terms to one side: $\frac{1}{a} + \frac{3}{a} = 3a - a$, giving $\frac{4}{a} = 2a$.
3. Multiply both sides by a : $4 = 2a^2$.
4. Divide by 2: $a^2 = 2$, so $a = \pm\sqrt{2}$.

Checking: with $a = \sqrt{2}$, $\frac{1}{a} = \frac{1}{\sqrt{2}}$, and $a + \frac{1}{a} \approx 2.121$, while $3(a - \frac{1}{a}) \approx 3(0.707) \approx 2.121$, confirming the solution.

So the correct answer is option A, $\pm\sqrt{2}$.

Quick Tip: Multiply through by a to clear the fractions, giving $2a^2 = 4$.

...

. The total number of natural numbers that lie between 10 and 300 and are divisible by 9 is

- (A) 32
- (B) 30
- (C) 33
- (D) 34

Correct Answer: (A) 32

SOLUTION:

A quick way to count multiples of 9 in a range is to count multiples up to each endpoint and subtract.

1. Number of multiples of 9 from 1 to 300: $[300/9] = 33$ (since $9 \times 33 = 297 \leq 300$).
2. Number of multiples of 9 from 1 to 10: $[10/9] = 1$ (just the number 9 itself, which is not between 10 and 300 anyway).

3. Multiples of 9 strictly between 10 and 300 = $33 - 1 = 32$.

This matches the AP-based count exactly.

So the correct answer is option A, 32.

Quick Tip: Count multiples of 9 up to 300, subtract those up to 10:
 $\text{floor}(300/9) - \text{floor}(10/9) = 33 - 1 = 32$.

• • •

. If ${}^nC_x = 56$ and ${}^nP_x = 336$, then find n and x .

- (A) 7, 3
- (B) 8, 4
- (C) 8, 3
- (D) 9, 6

Correct Answer: (C) 8, 3

SOLUTION:

Dividing the permutation value by the combination value directly isolates $x!$, which is usually the fastest route into these problems.

1. $\frac{{}^nP_x}{{}^nC_x} = x!$, so $x! = \frac{336}{56} = 6$, giving $x = 3$ since $3! = 6$.
2. With $x = 3$, ${}^nC_3 = \frac{n(n-1)(n-2)}{6} = 56$, so $n(n-1)(n-2) = 336$.
3. Trying consecutive integers around a cube-root estimate of $336^{1/3} \approx 7$: testing $n = 8$ gives $8 \times 7 \times 6 = 336$, a match.

So $n = 8$ and $x = 3$, confirming option C.

Quick Tip: $nPx / nCx = x!$; use that to find x first, then solve $n(n-1)(n-2) = 336$ for n .

• • •

. One side of an equilateral triangle is 24 cm. The midpoints of its sides are joined to form another triangle, whose midpoints are in turn joined to form still another triangle. This process continues indefinitely. Find the sum of the perimeters of all the triangles.

- (A) 144 cm
- (B) 72 cm
- (C) 536 cm
- (D) 676 cm

Correct Answer: (A) 144 cm

SOLUTION:

Since each new triangle's perimeter is exactly half of the one before it, the whole sequence of perimeters is a simple halving pattern that can be summed using the infinite geometric series formula.

1. First perimeter: $3 \times 24 = 72$ cm.
2. Each subsequent triangle's side is half the previous one (midsegment theorem), so each subsequent perimeter is also exactly half the previous perimeter.
3. This gives a geometric series: $72 + 36 + 18 + 9 + \dots$, with common ratio $r = \frac{1}{2}$.
4. Sum to infinity $= \frac{72}{1 - \frac{1}{2}} = \frac{72}{0.5} = 144$.

So the correct answer is option A, 144 cm.

Quick Tip: Each new triangle's perimeter is half the previous one; sum the infinite GP with first term 72 and ratio $1/2$.

• • •

. The probability that a leap year, selected at random, contains either 53 Sundays or 53 Mondays, is:

- (A) $1/7$
- (B) $2/7$
- (C) $3/7$
- (D) None of these

Correct Answer: (C) $3/7$

SOLUTION:

Since only the 2 “extra” days beyond the 52 full weeks can create a 53rd occurrence of any weekday, it helps to just list all 7 equally likely extra-day pairs and mark which ones qualify.

1. The 7 possible pairs: Sun-Mon, Mon-Tue, Tue-Wed, Wed-Thu, Thu-Fri, Fri-Sat, Sat-Sun.
2. Mark the pairs containing Sunday: Sat-Sun and Sun-Mon (2 pairs).
3. Mark the pairs containing Monday: Sun-Mon and Mon-Tue (2 pairs).
4. Counting the Sunday-or-Monday pairs without double-counting Sun-Mon (which satisfies both): Sat-Sun, Sun-Mon, Mon-Tue, a total of 3 distinct pairs out of 7.

So the probability is $\frac{3}{7}$.

The correct answer is option C.

Quick Tip: List all 7 possible “extra day” pairs in a leap year and count how many include Sunday or Monday, without double-counting the Sun-Mon pair.

...

. Find the intercepts made by the line $3x + 4y - 12 = 0$ on the axes:

- (A) 2 and 3
- (B) 4 and 3
- (C) 3 and 5
- (D) None of these

Correct Answer: (B) 4 and 3

SOLUTION:

The intercepts can also be found directly by setting each variable to zero in turn, without rearranging the whole equation.

1. To find the x-intercept, set $y = 0$: $3x - 12 = 0 \Rightarrow x = 4$.
2. To find the y-intercept, set $x = 0$: $4y - 12 = 0 \Rightarrow y = 3$.

So the line crosses the x-axis at 4 and the y-axis at 3.

The correct answer is option B, 4 and 3.

Quick Tip: Set $y=0$ to find the x-intercept and $x=0$ to find the y-intercept.

...

. The average of 4 distinct prime numbers a, b, c, d is 35, where $a < b < c < d$. a and d are equidistant from 36, b and c are equidistant from 34, a and b are equidistant from 30, and c and d are equidistant from 40. The difference between a and d is:

- (A) 30
- (B) 14
- (C) 21
- (D) Cannot be determined

Correct Answer: (B) 14

SOLUTION:

Turning each “equidistant from X ” clue into a sum equation converts this into a small system of equations that can be solved directly, without guessing primes blindly.

1. “ A and D equidistant from 36” means 36 is exactly halfway between them, so $a + d = 72$.
2. Similarly, $b + c = 68$, $a + b = 60$, and $c + d = 80$.
3. From $a + d = 72$ and $a + b = 60$: subtracting gives $d - b = 12$.
4. Adding all four sum-equations: $2(a + b + c + d) = 72 + 68 + 60 + 80 = 280$, so $a + b + c + d = 140$, matching the average condition directly and confirming consistency.
5. Using $a + b = 60$, try small primes for a : with $a = 29$, $b = 31$ (both prime); then $c = 68 - 31 = 37$ and $d = 72 - 29 = 43$, both prime, and increasing in the right order.

$$d - a = 43 - 29 = 14.$$

The correct answer is option B, 14.

Quick Tip: Convert each “equidistant from X” clue into a sum equation (e.g. $a+d=72$), then find primes satisfying all four sums.

• • •

. Ramsukh bhai sells rasgulla (a favourite Indian sweet) at Rs. 15 per kg. A rasgulla is made up of flour and sugar in the ratio 5 : 3 (by weight). The ratio of the price of sugar to flour is 7 : 3 (per kg). He earns a profit of $66\frac{2}{3}\%$. What is the cost price of sugar?

- (A) Rs. 10/kg
- (B) Rs. 9/kg
- (C) Rs. 18/kg
- (D) Rs. 14/kg

Correct Answer: (D) Rs. 14/kg

SOLUTION:

Working backward from the selling price to find the mixture's cost price first, then splitting that cost using the ingredient ratio, keeps this problem in clean, manageable stages.

1. Profit of $66\frac{2}{3}\%$ means selling price is $\frac{5}{3}$ of cost price (since $1 + \frac{2}{3} = \frac{5}{3}$), so cost price = $15 \div \frac{5}{3} = 9$ Rs/kg.
2. Let flour cost $3x$ and sugar cost $7x$ per kg, matching the given 3 : 7 (flour:sugar) price ratio.
3. The rasgulla mix is 5 parts flour to 3 parts sugar by weight (8 parts total), so the blended cost per kg is a weighted average:
$$\frac{5(3x)+3(7x)}{8} = \frac{15x+21x}{8} = \frac{36x}{8} = 4.5x.$$
4. Setting this equal to the known cost price: $4.5x = 9 \Rightarrow x = 2$.
5. Sugar's price per kg = $7x = 14$.

So the correct answer is option D, Rs. 14/kg.

Quick Tip: First find the rasgulla's own cost price from the $66\frac{2}{3}\%$ profit, then split that cost using the 5:3 flour:sugar weight ratio and 3:7 price ratio.

• • •

. A reduction of 20% in the price of sugar enables a person to purchase 6 kg more for Rs. 240. What is the original price per kg of sugar?

- (A) Rs. 10/kg
- (B) Rs. 8/kg
- (C) Rs. 6/kg
- (D) Rs. 5/kg

Correct Answer: (A) Rs. 10/kg

SOLUTION:

Since the price drops by exactly 20%, the quantity buyable for the same money rises by a clean, easy-to-compute fraction, which makes plugging in round numbers a fast route here.

1. A 20% price cut means the new price is $\frac{4}{5}$ of the old price, so the same money now buys $\frac{5}{4}$ times the original quantity.
2. The increase in quantity is therefore $\frac{5}{4} - 1 = \frac{1}{4}$ of the original quantity, and this equals the given 6 kg.
3. So the original quantity bought for Rs. 240 was $6 \times 4 = 24$ kg.
4. Original price per kg = $\frac{240}{24} = 10$.

So the correct answer is option A, Rs. 10/kg.

Quick Tip: A 20% price cut lets the same money buy $5/4$ times as much; the extra $1/4$ of the original quantity equals 6 kg.

• • •

. A solid sphere is melted and recast into a right circular cone with a base radius equal to the radius of the sphere. What is the ratio of the height to the radius of the cone so formed?

- (A) 4 : 3
- (B) 2 : 3
- (C) 3 : 4
- (D) None of these

Correct Answer: (D) None of these

SOLUTION:

Since the sphere's volume formula and the cone's volume formula share a common πr^2 (or πr^3) factor, most of the algebra cancels away quickly.

1. Sphere volume: $\frac{4}{3}\pi r^3$.
2. Cone volume with the same radius r : $\frac{1}{3}\pi r^2 h$.
3. Setting them equal: $\frac{4}{3}\pi r^3 = \frac{1}{3}\pi r^2 h$.
4. Dividing both sides by $\frac{1}{3}\pi r^2$: $4r = h$.

This gives a height-to-radius ratio of exactly 4 : 1, which does not appear among the first three options.

So the correct answer is option D, none of these.

Quick Tip: Equal volumes with the same radius give $h = 4r$, a 4:1 ratio, which isn't among the first three choices.

• • •

. The speeds of a scooter, a car and a train are in the ratio of 1 : 4 : 16. If all of them cover an equal distance, then the ratio of (time taken ÷ velocity) for each of the vehicles is:

- (A) 256 : 16 : 1
- (B) 1 : 4 : 16
- (C) 16 : 4 : 1
- (D) 16 : 1 : 4

Correct Answer: (A) 256 : 16 : 1

SOLUTION:

Since time = distance/speed for equal distances, and we then need time/speed, the whole quantity for each vehicle works out to distance/speed², making it easy to build the ratio directly from the speed ratio.

1. For a fixed distance D , (time ÷ velocity) = $\frac{D/v}{v} = \frac{D}{v^2}$.
2. Since D is the same for all three vehicles, the ratio of (time ÷ velocity) across vehicles is just the ratio of $\frac{1}{v^2}$ values.
3. Speeds are in ratio 1 : 4 : 16, so v^2 values are in ratio 1 : 16 : 256.
4. Taking reciprocals for $\frac{1}{v^2} : \frac{1}{16} : \frac{1}{256}$, which, multiplied through by 256, becomes 256 : 16 : 1.

So the correct answer is option A, 256 : 16 : 1.

Quick Tip: Time/velocity for a fixed distance equals distance/velocity²; take the reciprocal of the squared speed ratio.

• • •

. B is twice as efficient as A, and A can do a piece of work in 15 days. A started the work, and after a few days B joined him. They completed the work in 11 days from the start. For how many days did they work together?

- (A) 1 day
- (B) 2 days
- (C) 6 days
- (D) 5 days

Correct Answer: (B) 2 days

SOLUTION:

Since B's rate is double A's, it helps to imagine the last stretch of work as being done at 3 times A's solo pace, and work out how much “extra” that stretch contributes compared to A working alone the whole time.

1. If A had worked alone for all 11 days, A would complete $11 \times 1 = 11$ units, but the actual total work is 15 units, a shortfall of $15 - 11 = 4$ units.
2. Each day that B works alongside A (instead of A working alone that day) adds an extra 2 units beyond what A alone would have done that day (since together they do 3 units instead of A's 1 unit, a gain of 2).
3. To make up the shortfall of 4 units at a gain of 2 units per joint day, the number of joint days must be $\frac{4}{2} = 2$.

So the correct answer is option B, 2 days.

Quick Tip: Each day B joins adds 2 extra units over what A alone would do; find how many such days are needed to cover the shortfall from 11 days of A working alone.

• • •

. A, B, C and D purchased a restaurant for Rs. 56 lakhs. The contribution of B, C and D together is 460% that of A alone. The contribution of A, C and D together is $366\frac{2}{3}\%$ that of B's contribution, and the contribution of C is 40% that of A, B and D together. The amount contributed by D is:

- (A) 10 lakhs
- (B) 12 lakhs
- (C) 16 lakhs
- (D) 18 lakhs

Correct Answer: (D) 18 lakhs

SOLUTION:

Each of the three percentage clues actually describes “the total minus one person”, which makes it easy to isolate that one person directly using the grand total of 56.

1. “B+C+D is 460% of A” really means $(56 - A) = 4.6A$, since $B+C+D = 56 - A$. Solving: $56 = 5.6A \Rightarrow A = 10$.
2. “A+C+D is $366\frac{2}{3}\%$ of B” means $(56 - B) = \frac{11}{3}B$. Solving: $56 = \frac{14}{3}B \Rightarrow B = 12$.
3. “C is 40% of A+B+D” means $C = 0.4(56 - C)$, so $C = 22.4 - 0.4C \Rightarrow 1.4C = 22.4 \Rightarrow C = 16$.

4. With A, B, C known, D follows directly: $D = 56 - 10 - 12 - 16 = 18$.

So the correct answer is option D, 18 lakhs.

Quick Tip: Each clue is really “total minus one person”; rewrite each as $(56 - X) = \text{ratio} \times \text{total}$; solve for A, B, C directly, then D by subtraction.

...

. The salary of Raju and Ram is 20% and 30% less than the salary of Saroj respectively. By what percent is the salary of Raju more than the salary of Ram?

- (A) 33.33%
- (B) 50%
- (C) 15.18%
- (D) 14.28%

Correct Answer: (D) 14.28%

SOLUTION:

Since both salaries are given as percentages of the same base (Saroj's salary), the comparison between Raju and Ram can be done directly using those percentage figures instead of picking a number.

1. Raju's salary is 80% of Saroj's; Ram's salary is 70% of Saroj's.
2. The difference, $80 - 70 = 10$ (percentage points of Saroj's salary), needs to be expressed as a percentage of Ram's own salary, which is 70 (in the same units).
3. $\frac{10}{70} \times 100 = \frac{1000}{70} \approx 14.28\%$.

So the correct answer is option D, 14.28%.

Quick Tip: Raju = 80% of Saroj, Ram = 70% of Saroj; find $(80-70)/70$ as a percentage.

• • •

. The radius of a wire is decreased to one-third, and its volume remains the same. The new length is how many times the original length?

- (A) 2 times
- (B) 4 times
- (C) 5 times
- (D) 9 times

Correct Answer: (D) 9 times

SOLUTION:

Since volume is fixed, shrinking the radius must be compensated by stretching the length, and the compensation follows the square of the radius change because volume depends on radius squared.

1. Volume of a cylindrical wire is $\pi r^2 h$, so for a fixed volume, $r^2 h$ stays constant.
2. If the radius shrinks to $\frac{1}{3}$ of its original value, r^2 shrinks to $\frac{1}{9}$ of its original value.
3. To keep $r^2 h$ constant, h must grow by exactly the factor that cancels this, which is 9.

So the correct answer is option D, 9 times.

Quick Tip: Volume depends on r^2h ; shrinking r to $1/3$ shrinks r^2 to $1/9$, so h must grow 9 times to keep volume constant.

• • •

. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

By “triumph” the author means:

- (A) sin
- (B) loss
- (C) sorrow
- (D) victory

Correct Answer: (D) victory

SOLUTION:

Step 1: Understanding the Concept.

“Triumph” is being used here as a noun describing the highest achievement of being alive.

Step 2: Recall the everyday meaning of the word.

In common English, “triumph” means a great success or victory, often accompanied by a sense of celebration.

Step 3: Match this against the passage's tone.

The passage praises being alive as something to “dance with rapture” about, which fits a celebratory word like victory, not a negative word like sin, loss, or sorrow.

Step 4: Final Answer.

“Triumph” means victory, so option D is correct.

Quick Tip: “Triumph” is a positive, celebratory word in everyday English; match it to the one option with the same positive charge.

• • •

. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

When the dead look after the afterwards, the living should look at life:

- (A) forever
- (B) for some months
- (C) for only a short while
- (D) in the past

Correct Answer: (C) for only a short while

SOLUTION:

Step 1: Locate the relevant line.

The passage states that life in the flesh is “ours, and ours alone, and

ours only for a time.”

Step 2: Interpret “only for a time”.

This phrase is a general expression meaning a limited, brief span, not a specific count of months or years.

Step 3: Eliminate the wrong options.

“Forever” contradicts the idea of a limited time; “for some months” wrongly turns a general phrase into an exact duration; “in the past” misreads the passage's present-tense focus.

Step 4: Final Answer.

The correct reading is “for only a short while”, so option C is correct.

Quick Tip: “Only for a time” is a general phrase about brevity, not a specific number of months.



. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

By “rapture” the author means an emotion involving great:

- (A) trepidation
- (B) thrill
- (C) fear
- (D) joy

Correct Answer: (D) joy

SOLUTION:

Step 1: Understanding the Concept.

“Rapture” describes a state of intense pleasure or delight.

Step 2: Check the context.

The author writes “we ought to dance with rapture”, an image of joyful celebration, not fear or anxiety.

Step 3: Match to the closest option.

Among trepidation, thrill, fear, and joy, only joy captures the full, deep sense of celebratory delight that “rapture” conveys.

Step 4: Final Answer.

“Rapture” means great joy, so option D is correct.

Quick Tip: “Dance with rapture” is a celebratory image; rapture means intense joy or ecstasy.



. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

By the last line, “It [has no existence by itself, it is only the glitter of the sun on the surface of] waters”, the author means that the mind is only:

- (A) a mirage
- (B) an illusion
- (C) magic
- (D) a reflection

Correct Answer: (D) a reflection

SOLUTION:

Step 1: Understanding the Concept.

The author compares the mind to “the glitter of the sun on the surface of the waters”, a specific visual image of sunlight bouncing off water.

Step 2: Identify what this image literally describes.

Light glinting off a water surface is, physically, a reflection of the sun.

Step 3: Match this to the options.

“Mirage” and “illusion” both suggest something false or non-existent, which is stronger than the image used; “magic” is too fanciful.

“Reflection” matches the literal physical process being described.

Step 4: Final Answer.

The mind is described as only a reflection, so option D is correct.

Quick Tip: Sunlight glittering on water is literally a reflection, not a trick of the eye or magic.

• • •

. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

The tone of this passage is:

- (A) social
- (B) moral
- (C) reflective
- (D) philosophical

Correct Answer: (D) philosophical

SOLUTION:

Step 1: Understanding the Concept.

Tone questions ask for the single word that best captures the overall

feel and purpose of the passage.

Step 2: Note the passage's scope.

The author discusses being alive, the self's connection to the sun, earth, human race, and the nature of the mind, a broad meditation on existence.

Step 3: Compare “reflective” and “philosophical”.

While the passage is reflective in style, “philosophical” better captures its deep, general musing on existence and identity, which includes but goes beyond simple reflection.

Step 4: Final Answer.

The tone is philosophical, so option D is correct.

Quick Tip: The passage muses broadly on existence and identity, not just personal reflection; that broader scope points to “philosophical”.



. Instructions: Read the following passage and answer the questions that follow.

Passage (D. H. Lawrence, 1885-1930, from *Apocalypse*, 1931): “For man, the vast marvel is to be alive. For man as for flower and beast and bird, the supreme triumph is to be most vividly, most perfectly alive. Whatever the unborn and the dead may know, they cannot know the beauty, the marvel of being alive in the flesh. The dead may look after the afterwards. But the magnificent here and now of life in the flesh is ours, and ours alone, and ours only for a time. We ought to dance with rapture, that we should be alive and in the flesh, and part of the living, incarnate cosmos. I am part of the sun as my eye is part of me. That I am part of the earth my feet know perfectly, and my blood is part of the sea. My soul knows that I am part of the human race, my soul is an organic part of the great human soul, as my spirit is part of my nation. In my own very self, I am part of my family. There is nothing of me that is alone and absolute except my mind, and we shall find that the mind has no existence by itself, it is only the glitter of the sun on the surface of the waters.”

The most suitable title for this passage would be:

- (A) The Surface of the Waters
- (B) My Mind
- (C) The Human Race
- (D) Alive and Kicking

Correct Answer: (D) Alive and Kicking

SOLUTION:

Step 1: Understanding the Concept.

A passage's title should reflect its central theme, not a minor

supporting detail.

Step 2: Identify the central theme.

The passage opens with “the vast marvel is to be alive” and returns repeatedly to the idea of being vividly, perfectly alive.

Step 3: Eliminate options based on minor details.

“The Surface of the Waters” and “My Mind” refer only to the closing image about the mind; “The Human Race” is just one item in a longer list of connections. None of these capture the whole passage.

Step 4: Final Answer.

“Alive and Kicking” best captures the passage's central celebration of simply being alive, so option D is correct.

Quick Tip: The passage's central theme is simply the marvel of being alive, not any one supporting detail like the mind or the human race.



. Choose the correct option.

The repetition of messages or the use of superfluous expressions is called

-
- (A) redundancy
 - (B) hyperbole
 - (C) alliteration
 - (D) allegory

Correct Answer: (A) redundancy

SOLUTION:

Each option names a distinct language term, so matching the definition given to the correct term is enough.

1. **Redundancy:** Refers exactly to saying the same thing twice or using more words than needed, matching the question's definition precisely.
2. **Hyperbole:** A deliberate exaggeration used for emphasis, not repeated or extra wording.
3. **Alliteration:** Repeating the same initial sound across nearby words, a stylistic sound device, not repeated meaning.
4. **Allegory:** A narrative that carries a deeper symbolic or moral meaning, unrelated to repetition at all.

So the correct answer is option A, redundancy.

Quick Tip: Repeated meaning or unnecessary extra wording is redundancy, not a sound device like alliteration.

• • •

. Choose the correct option.

Ink : Pen : Paper

(A) Watch : Dial : Strap

(B) Book : Paper : Words

(C) Farmer : Plough : Field

(D) Colour : Brush : Canvas

Correct Answer: (D) Colour : Brush : Canvas

SOLUTION:

The clearest way to solve this is to describe the original triplet as a mini-sentence, then test which option fits the same sentence template.

1. Template: “A pen is dipped in ink and used to write on paper.”
2. **Watch : Dial : Strap**: These are just three parts of one object, with no “dip a tool in a substance to mark a surface” action, so it fails the template.
3. **Book : Paper : Words**: Describes composition, not an action involving a tool and a material, so it fails too.
4. **Farmer : Plough : Field**: A farmer uses a plough on a field, but there is no substance (like ink or paint) the plough is “dipped in”, so the match is only partial.
5. **Colour : Brush : Canvas**: “A brush is dipped in colour and used to paint on canvas” fits the template word for word.

So the correct answer is option D.

Quick Tip: The pattern is “material – tool dipped in it – surface marked”; only colour : brush : canvas repeats this exactly.

• • •

. Choose the correct option for REALIA

- (A) theoretical constructs
- (B) fabricated examples
- (C) objects from real life
- (D) based on reality

Correct Answer: (C) objects from real life

SOLUTION:

“Realia” is a term worth knowing precisely, since its meaning is quite specific and easy to confuse with vaguer options.

1. **Theoretical constructs:** Abstract, not physical, the opposite of what realia refers to.
2. **Fabricated examples:** Invented rather than real, again the opposite of the term's actual meaning.
3. **Objects from real life:** Matches precisely; realia are genuine everyday objects (like a bus ticket or a menu) used as teaching aids to connect learning to the real world.
4. **Based on reality:** Too broad and vague a phrase, since it could describe many things that are not literal physical objects.

So the correct answer is option C.

Quick Tip: Realia specifically means real, everyday objects used as teaching aids, not abstract or invented material.

• • •

. Choose the grammatically correct option from the following.

- (A) “Are these gloves belonging to you?” she asked.
- (B) “Does this gloves belong to you?” she asked.
- (C) “Do these gloves belongs to you?” she asked.
- (D) “Do these gloves belong to you?” she asked.

Correct Answer: (D) “Do these gloves belong to you?” she asked.

SOLUTION:

Since “gloves” is always treated as plural in this sense, every option can be checked quickly just for subject-verb agreement and the choice between “do” and “does”.

1. **Option A:** Uses “are... belonging”, an unnatural continuous form for the verb “belong”, which normally describes a fixed state, not an ongoing action.
2. **Option B:** Pairs the singular “does” and “this” with the plural noun “gloves”, a mismatch.
3. **Option C:** Correctly uses “do” and “these”, but then wrongly adds an “-s” to “belong”, which should stay in its base form after “do”.
4. **Option D:** Uses “do these gloves belong”, matching plural subject, plural helping verb, and the correct base form of the main verb.

So the correct answer is option D.

Quick Tip: “Gloves” is plural, so it needs “do” (not “does”) and the base form “belong” (not “belongs” or “belonging”).

• • •

. Choose the grammatically correct option from the following.

(A) I live in a house in a street in the countryside. The street is called “Bear Street” and the house is old - more than 100 years old!

(B) I live in the house in the street countryside. The street is called “Bear Street” and the house is old - more than 100 years old!

(C) I live in a house in the street in the countryside. The street is called “Bear Street” and the house is old - more than 100 years old!

(D) I live in a house in a street in the countryside. The street is called “Bear Street” and a house is old - more than 100 years old!

Correct Answer: (A) I live in a house in a street in the countryside. The street is called “Bear Street” and the house is old - more than 100 years old!

SOLUTION:

The rule being tested here is simple: use “a” the first time something is mentioned, and “the” every time after, once both speaker and listener know exactly which one is meant.

1. **Option A:** First mention: “a house”, “a street” (both new information); second mention: “the street”, “the house” (both now specific and known). This follows the rule exactly.
2. **Option B:** Uses “the house” and “the street” right from the first mention, before they have been introduced, and also drops a needed “in” between “street” and “countryside”.
3. **Option C:** Introduces “a house” correctly, but then uses “the street” on its very first mention, which is inconsistent.
4. **Option D:** Gets the first sentence right, but incorrectly reintroduces “a house” in the second sentence with “a” instead of “the”, even though the house was already named in the first sentence.

So the correct answer is option A.

Quick Tip: Use “a” only on first mention of the house/street; every later mention needs “the”.

• • •

. Choose the grammatically correct option from the following.

- (A) The teachers will be able to visit our schools and compare our teaching methods to their own.
- (B) The teachers will be able to pay a visit to our schools and compare teaching methods for their own.
- (C) The teachers will be able to visit our schools and compare our teaching methods with their own.
- (D) The teachers will be able to visit our school and compare their teaching method with their own.

Correct Answer: (C) The teachers will be able to visit our schools and compare our teaching methods with their own.

SOLUTION:

Two separate checks decide this question: the correct preposition after “compare”, and whether the sentence's pronouns actually make logical sense.

1. **Option A:** Fails the preposition check, using “to” instead of “with”.
2. **Option B:** Also fails the preposition check with “for”, and additionally drops the needed “our” before “teaching methods”.

3. **Option C:** Uses “with” correctly, and clearly contrasts “our teaching methods” against “their own”, meaning the visiting teachers' methods, a sensible and grammatical comparison.
4. **Option D:** Uses “with” correctly, but the phrase “their teaching method with their own” uses “their” for both sides of the comparison, which is confusing and illogical, since the sentence should be contrasting “our” methods with “theirs”, not “their” methods with “their own”.

So the correct answer is option C.

Quick Tip: “Compare” takes the preposition “with”, and the comparison should logically be “our methods” against “their own”, not “their” against “their own”.

• • •

. Choose the grammatically correct option from the following.

- (A) Could you give me the amount that you filled out in the check which was sent?
- (B) Could you give me the amount what you filled out in the check you sent?
- (C) Could you give me the amount for which you filled out in the check you sent?
- (D) Could you give me the amount wherein you filled out in the check you sent?

Correct Answer: (A) Could you give me the amount that you filled out in the check which was sent?

SOLUTION:

Each wrong option swaps in a relative pronoun or connector that does not fit naturally with the surrounding words, so checking each swap in isolation quickly narrows this down.

1. **“What”** in option B is not used as a relative pronoun directly after a noun like “amount” in standard English; “that” or “which” is required instead.
2. **“For which”** in option C adds an unneeded preposition that does not fit the action of filling out an amount.
3. **“Wherein”** in option D means “in which”, which does not naturally describe “filling out” an amount either.
4. **Option A** uses the standard, natural relative pronouns “that” (for the amount) and “which” (for the check), producing a smooth, correct sentence.

So the correct answer is option A.

Quick Tip: “What” cannot follow a noun like “amount” as a relative pronoun; “that”/“which” are the natural choices here.

• • •

. Choose the grammatically correct option from the following.

- (A) I have completed the work yesterday.
- (B) I did completed the work yesterday.
- (C) I have had completed the work yesterday.
- (D) I completed the work yesterday.

Correct Answer: (D) I completed the work yesterday.

SOLUTION:

The single clue “yesterday” decides this whole question, since specific past-time words in English always call for the simple past tense.

1. **Option A:** Present perfect (“have completed”) is reserved for actions without a specific past time stated; pairing it with “yesterday” breaks this rule.
2. **Option B:** “Did” already carries the past tense, so the verb after it must be in its base form (“complete”), not the participle (“completed”).
3. **Option C:** “Have had completed” is not a valid English tense form at all.
4. **Option D:** Simple past “completed” pairs correctly with the specific past marker “yesterday”.

So the correct answer is option D.

Quick Tip: A specific past-time word like “yesterday” always needs the simple past tense, not the present perfect.

• • •

. Choose the grammatically correct option from the following.

- (A) The train couldn't stop in time and crashed with the truck.
- (B) The train couldn't stop in time and crashed into the truck.
- (C) The train couldn't stop in time and crashed against the truck.
- (D) The train couldn't stop in time and crashed before the truck.

Correct Answer: (B) The train couldn't stop in time and crashed into the truck.

SOLUTION:

Since “crash” has one standard idiomatic partner preposition in English, checking each option against that fixed collocation is the quickest route here.

1. **“Crashed with”**: Not the idiom native English speakers use for vehicle collisions.
2. **“Crashed into”**: The standard, natural collocation for describing one object colliding with another.
3. **“Crashed against”**: Sounds closer to correct but is less natural than “into” for a moving vehicle striking another.
4. **“Crashed before”**: Describes a time or position relationship, not a collision at all.

So the correct answer is option B, crashed into the truck.

Quick Tip: “Crash” idiomatically takes the preposition “into” when describing a collision.



. Instructions: Choose the correct synonymous word or description for each quoted word in the passage below.

“The Jan Lokpal Bill, also 'referred to' (126) as the citizens' ombudsman bill, is a proposed 'independent' (127) anti-corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal Bill, which is currently being proposed by the government of India. The Jan Lokpal Bill aims to effectively 'deter' (128) corruption, redress 'grievances' (129) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent 'ombudsman' (130) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval.” (Source: Wikipedia)

(126) 'referred to' means:

- (A) described as
- (B) included in
- (C) supported for
- (D) reformed as

Correct Answer: (A) described as

SOLUTION:

Substituting each option directly into the sentence, “also ____ the citizens' ombudsman bill”, quickly shows which one keeps the same meaning as the original phrase “also referred to as”.

1. **Described as:** “Also described as the citizens' ombudsman bill” reads naturally and keeps the original naming sense.

2. **Included in:** Would wrongly suggest the bill is a part of something called “the citizens' ombudsman bill”, not another name for the same bill.
3. **Supported for:** Does not make sense as a naming phrase at all.
4. **Reformed as:** Implies the bill was changed into this form, which is not what “referred to as” means.

So the correct answer is option A, described as.

Quick Tip: “Referred to as” simply means “called” or “described as” another name.



. Instructions: Choose the correct synonymous word or description for each quoted word in the passage below.

“The Jan Lokpal Bill, also 'referred to' (126) as the citizens' ombudsman bill, is a proposed 'independent' (127) anti-corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal Bill, which is currently being proposed by the government of India. The Jan Lokpal Bill aims to effectively 'deter' (128) corruption, redress 'grievances' (129) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent 'ombudsman' (130) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval.” (Source: Wikipedia)

(127) 'independent' means:

- (A) self-centered
- (B) impartial
- (C) self-seeking
- (D) self-possessed

Correct Answer: (B) impartial

SOLUTION:

Since “independent” here describes a law or institution (not a person's personality), the correct synonym should relate to freedom from outside control, not selfish behaviour.

1. **Self-centered** and **self-seeking**: Both describe a selfish personality trait, which does not fit describing a law's structure.
2. **Self-possessed**: Describes calm, composed behaviour in a person, again not relevant to a law's independence.
3. **Impartial**: Describes something free from bias or outside control, matching exactly how an anti-corruption law is meant to work without political interference.

So the correct answer is option B, impartial.

Quick Tip: Here “independent” describes freedom from outside control, matching “impartial”, not a selfish personality trait.



. Instructions: Choose the correct synonymous word or description for each quoted word in the passage below.

“The Jan Lokpal Bill, also 'referred to' (126) as the citizens' ombudsman bill, is a proposed 'independent' (127) anti-corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal Bill, which is currently being proposed by the government of India. The Jan Lokpal Bill aims to effectively 'deter' (128) corruption, redress 'grievances' (129) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent 'ombudsman' (130) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval.” (Source: Wikipedia)

(128) 'deter' means:

- (A) swell
- (B) prevent
- (C) propel
- (D) lubricate

Correct Answer: (B) prevent

SOLUTION:

An anti-corruption law logically aims to stop corruption, so the correct synonym should carry that same “stopping” sense.

1. **Swell:** Means to increase in size, the opposite of what an anti-corruption law wants for corruption.
2. **Prevent:** Means to stop something from happening, matching exactly the purpose of deterring corruption.

3. **Propel:** Means to push forward or drive on, again the opposite of the intended meaning.
4. **Lucubrate:** An unrelated word meaning to study intensively, out of place here.

So the correct answer is option B, prevent.

Quick Tip: An anti-corruption law “deters” corruption, meaning it aims to prevent or discourage it.

• • •

. Instructions: Choose the correct synonymous word or description for each quoted word in the passage below.

“The Jan Lokpal Bill, also 'referred to' (126) as the citizens' ombudsman bill, is a proposed 'independent' (127) anti-corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal Bill, which is currently being proposed by the government of India. The Jan Lokpal Bill aims to effectively 'deter' (128) corruption, redress 'grievances' (129) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent 'ombudsman' (130) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval.” (Source: Wikipedia)

(129) 'grievances' means:

- (A) complaints
- (B) dishonesty
- (C) committees
- (D) opinions

Correct Answer: (A) complaints

SOLUTION:

The phrase “redress grievances” is a common formal collocation, so recognising it directly points to the answer.

1. **Complaints:** “Redress grievances” is standard legal and administrative language for “fix complaints”, matching exactly.
2. **Dishonesty:** A personal trait, not something citizens would want redressed.
3. **Committees:** An unrelated organisational term.
4. **Opinions:** Too broad and neutral; grievances specifically implies something is wrong that needs fixing, not just any viewpoint.

So the correct answer is option A, complaints.

Quick Tip: “Redress grievances” is standard phrasing for “fix complaints”.



. Instructions: Choose the correct synonymous word or description for each quoted word in the passage below.

“The Jan Lokpal Bill, also 'referred to' (126) as the citizens' ombudsman bill, is a proposed 'independent' (127) anti-corruption law in India. Anti-corruption social activists proposed it as a more effective improvement on the original Lokpal Bill, which is currently being proposed by the government of India. The Jan Lokpal Bill aims to effectively 'deter' (128) corruption, redress 'grievances' (129) of citizens, and protect whistle-blowers. If made into law, the bill would create an independent 'ombudsman' (130) body called the Lokpal. It would be empowered to register and investigate complaints of corruption against politicians and bureaucrats without prior government approval.” (Source: Wikipedia)

(130) 'ombudsman' means:

- (A) a government appointee who investigates complaints by private persons against bureaucrats and/or politicians.
- (B) a government appointee who investigates complaints by the government against common citizens.
- (C) a government appointee who investigates complaints by citizens against citizens.
- (D) a government appointee who investigates complaints by the government against government officials.

Correct Answer: (A) a government appointee who investigates complaints by private persons against bureaucrats and/or politicians.

SOLUTION:

The key detail to get right here is the direction of the complaint: who is complaining, and who is being complained about.

1. **Option A:** Private citizens complain against bureaucrats/politicians. This matches the real-world role of an ombudsman, as also described later in the passage (“investigate complaints of corruption against politicians and bureaucrats”).
2. **Option B:** Reverses the direction, government complaining against citizens, which does not match.
3. **Option C:** Describes citizen-versus-citizen disputes, which is a matter for courts, not an ombudsman.
4. **Option D:** Has the government complaining against its own officials, again the wrong direction.

So the correct answer is option A.

Quick Tip: An ombudsman handles complaints made BY citizens AGAINST officials, not the other way round.

• • •

. Instructions: In the following sentences, one word or phrase is used wrongly. Choose the word that must be changed, modified, or deleted to make the sentence correct. There are sentences without any errors too.

The committee came to a decision to discuss in detail about assorted problems that people have been facing for a long time.

- (A) came to
- (B) to discuss
- (C) about
- (D) a long time

Correct Answer: (C) about

SOLUTION:

“Discuss” is one of a handful of English verbs that already carries the sense of “about” inside its own meaning, so adding “about” after it is a very common but incorrect redundancy.

1. “Discuss” means “to talk about”, so “discuss about X” literally becomes “talk about about X”, a clear redundancy.
2. The correct usage is simply “discuss X” (for example, “discuss the problems”), with no preposition needed.
3. The other three flagged phrases, “came to (a decision)”, “to discuss”, and “a long time”, are all standard, correct English usage on their own.

So the correct answer is option C, “about” is the word that must be deleted.

Quick Tip: “Discuss” already means “talk about”, so adding “about” after it is redundant.

• • •

. Instructions: In the following sentences, one word or phrase is used wrongly. Choose the word that must be changed, modified, or deleted to make the sentence correct. There are sentences without any errors too.

I know you must not see eye to eye with the philosophy of Ramkrishna, but you must admit that he had had tremendous influence over a great many followers.

- (A) see eye to eye
- (B) had had
- (C) influence over
- (D) no error

Correct Answer: (B) had had

SOLUTION:

Past perfect tense (“had had”) is reserved for describing something that happened before another past point already established in the sentence, and this sentence does not set up any such earlier reference point.

1. The sentence simply states a fact about Ramkrishna's influence in the past, with no second past event to compare it against.
2. Using the double “had had” incorrectly implies a past-before-past relationship that the sentence never establishes.
3. The correct form is simply the single past tense: “he had tremendous influence over a great many followers”.

So the correct answer is option B, “had had” is the phrase that needs correction.

Quick Tip: Past perfect (“had had”) needs an earlier past reference point; this sentence only describes one simple past fact.

• • •

. Instructions: In the following sentences, one word or phrase is used wrongly. Choose the word that must be changed, modified, or deleted to make the sentence correct. There are sentences without any errors too.

The Principal inquired with the students if they would like their teacher to repeat the lesson again.

- (A) inquired with
- (B) to repeat
- (C) again
- (D) no error

Correct Answer: (C) again

SOLUTION:

Just like “discuss about” in an earlier question, this is another case of a verb that already contains a certain meaning, paired unnecessarily with a word that repeats that same meaning.

1. “Repeat” means “to do or say again”, so the word “again” after it restates something already built into the verb.
2. The sentence reads correctly and completely without it: “...would like their teacher to repeat the lesson.”
3. The other flagged phrases, “inquired with” and “to repeat”, are grammatically fine as used here.

So the correct answer is option C, “again” is the redundant word that should be deleted.

Quick Tip: “Repeat” already means “to do again”, making the added word “again” redundant.

. Instructions: In the following sentences, one word or phrase is used wrongly. Choose the word that must be changed, modified, or deleted to make the sentence correct. There are sentences without any errors too.

One of the security guards rushed forward, unlocked the gate, and asked whether I had anything objectionable.

- (A) security guards
- (B) forward
- (C) objectionable
- (D) no error

Correct Answer: (D) no error

SOLUTION:

Since this question type sometimes has no actual error, it is worth carefully checking each flagged phrase individually before assuming one must be wrong.

1. “One of the security guards” is a standard, correctly formed phrase (singular verb “rushed” correctly follows “one of the...”).
2. “Rushed forward” is a natural, correct verb-adverb pairing describing quick movement.
3. “Anything objectionable” is a standard phrase meaning something that could be considered inappropriate or prohibited, used correctly here.

No word or phrase in the sentence needs to be changed.

So the correct answer is option D, no error.

Quick Tip: Check each flagged phrase individually; sometimes the correct answer really is “no error”.

• • •

. Rearrange the following sentence fragments (P, Q, R and S) to make a meaningful sentence.

I always told them _____ and consideration for me.

P. how for me she

Q. always exuded warmth

R. was like a family's

S. elder and how she has

(A) PRSQ

(B) PQSR

(C) PRQS

(D) SQPR

Correct Answer: (A) PRSQ

SOLUTION:

Since the sentence has a clear “how... and how...” parallel structure, spotting that pattern makes the ordering fall into place quickly.

1. The blank must open with “how”, pointing to P as the starting fragment.
2. “Family's” in R needs a noun right after it, which only S supplies (“elder”), linking R directly to S.
3. S ends with “and how she has”, clearly needing a verb phrase next, which Q supplies (“always exuded warmth”).

4. Q then flows directly into the sentence's given ending, “and consideration for me”.

Putting it together: P (how for me she) + R (was like a family's) + S (elder and how she has) + Q (always exuded warmth) + and consideration for me.

So the correct answer is option A, PRSQ.

Quick Tip: Look for the “how... and how...” parallel structure: P starts it, and S’s ending “and how she has” must lead into Q.

• • •

. Rearrange the following sentence fragments (P, Q, R and S) to make a meaningful sentence.

A year or _____ foreign languages.

P. I picked up a liking for learning

Q. the largest urban area and primary

R. so after leaving Bangkok

S. city of Thailand and a place of unique beauty

(A) RPQS

(B) RQSP

(C) RSPQ

(D) SPQR

Correct Answer: (B) RQSP

SOLUTION:

This sentence has a name (Bangkok) followed by a descriptive phrase about it, then the main clause continues, so spotting where the description begins and ends is the key.

1. “A year or” needs “so after leaving Bangkok” (R) to complete the opening time phrase.
2. Once Bangkok is named, it needs describing, which Q begins (“the largest urban area and primary”).
3. Q's dangling word “primary” needs a noun, supplied by S (“city of Thailand and a place of unique beauty”), completing the description.
4. After the descriptive phrase about Bangkok ends, the sentence returns to its main subject, “I”, in P (“I picked up a liking for learning”), which leads into the given ending “foreign languages”.

Putting it together: R (so after leaving Bangkok) + Q (the largest urban area and primary) + S (city of Thailand and a place of unique beauty) + P (I picked up a liking for learning) + foreign languages.

So the correct answer is option B, RQSP.

Quick Tip: Bangkok is named in R, then described across Q and S, before the main clause “I picked up...” resumes in P.

• • •

. Choose the correct option.

This book _____ five sections.

- (A) comprises of
- (B) comprises
- (C) consists
- (D) comprises to

Correct Answer: (B) comprises

SOLUTION:

Two similar verbs are being tested against each other here, “comprise” and “consist of”, and mixing their patterns is a very common English error.

1. “Comprise” means “to consist of” all by itself, so it should never be followed by “of”: “the book comprises five sections” is correct.
2. “Consist”, on the other hand, needs “of” after it: “the book consists of five sections”, but the option here is just “consists” alone, without “of”, making it incomplete.
3. “Comprises to” is not a valid pairing at all.

So the correct answer is option B, comprises (used without any preposition).

Quick Tip: “Comprise” already means “consist of”, so it never takes the word “of” after it.

• • •

. Choose the correct option.

My grandfather left most of his money to an NGO; the rest went directly to my daughter and _____

- (A) I
- (B) me
- (C) myself
- (D) myself too

Correct Answer: (B) me

SOLUTION:

A simple trick for this kind of question is to remove “my daughter and” and read the sentence with just the pronoun alone, which quickly reveals the correct case.

1. Simplified: “the rest went directly to ____.” Testing each option: “went to I” sounds wrong, “went to me” sounds correct, “went to myself” sounds odd without a matching subject doing something to themselves.
2. “Me” is the correct choice because pronouns after a preposition like “to” must be in the objective case.
3. “Myself” is reserved for reflexive use (the same person as both subject and object), which does not apply here since the sentence has no “I” performing the action of leaving money to myself.

So the correct answer is option B, me.

Quick Tip: Remove “my daughter and” and test the pronoun alone after “to”; the objective case “me” is needed.

• • •

. Choose the word that matches this description: “Parts of a country behind the coast or a river's banks”

- (A) Isthmus
- (B) Archipelago
- (C) Hinterland
- (D) Swamps

Correct Answer: (C) Hinterland

SOLUTION:

Each option is a distinct geography term, so matching the given definition to the one term it actually describes is straightforward.

1. **Isthmus:** A narrow land bridge connecting two larger landmasses, a completely different concept.
2. **Archipelago:** A cluster of islands, again unrelated to “land behind the coast”.
3. **Hinterland:** Specifically refers to the inland areas lying behind a coastline or a river's banks, matching the definition exactly.
4. **Swamps:** Refers to wet, marshy terrain, a description of land type, not location relative to a coast.

So the correct answer is option C, Hinterland.

Quick Tip: “Hinterland” specifically means the inland region behind a coast or riverbank.

...

. Instructions: The sentence below is given in Active voice. From the given alternatives, choose the one which best expresses the sentence in Passive voice.

Who is creating this mess?

- (A) Who has been created this mess?
- (B) By whom has this mess been created?
- (C) By whom this mess is being created?
- (D) By whom is this mess being created?

Correct Answer: (D) By whom is this mess being created?

SOLUTION:

Passive voice conversion needs two things checked separately: the tense must match, and for a question, the word order must correctly place the helping verb before the subject.

1. **Options A and B:** Both use “has been created” (present perfect), which does not match the original present continuous “is creating”.
2. **Option C:** Gets the tense right (“is being created”) but keeps a statement word order (“this mess is being created”) instead of the question word order needed after “by whom”.
3. **Option D:** Gets both right: present continuous passive (“is being created”) and correct question word order (“is this mess being created”).

So the correct answer is option D.

Quick Tip: Match the present continuous tense (“is being created”) and use question word order: helping verb before the subject.

• • •

. Instructions: The sentence below is given in Active voice. From the given alternatives, choose the one which best expresses the sentence in Passive voice.

You should open the wine about three hours before you use it.

- (A) Wine should be opened about three hours before use.
- (B) Wine should be opened by you three hours before use.
- (C) Wine should be opened about three hours before you use it.
- (D) Wine should be opened about three hours before it is used.

Correct Answer: (D) Wine should be opened about three hours before it is used.

SOLUTION:

Since the original sentence actually contains two separate actions (“open” and “use”), both need to be checked and converted to passive voice, not just the main one.

1. **Option A:** Converts “open” to passive but drops the second clause's meaning entirely, replacing it with a vague “before use”.
2. **Option B:** Converts “open” to passive but adds an unnecessary, overly specific “by you”, which the original sentence's general tone does not need.
3. **Option C:** Converts “open” to passive correctly, but leaves “before you use it” in the active voice, an inconsistent, incomplete

conversion.

4. **Option D:** Converts both clauses to passive: “wine should be opened... before it is used”, matching the original sentence's full structure.

So the correct answer is option D.

Quick Tip: The sentence has two clauses (open, and use); both need to be converted to passive voice, not just the first.

• • •

. Instructions: The passage below consists of six sentences. The first and the sixth sentences are given (S1, S6). The middle four sentences have been removed and jumbled up, labelled P, Q, R and S. Find the proper order for the four sentences.

S1: Metals are today being replaced by polymers in many applications.

P: Above all, they are cheaper and easier to process, making them a viable alternative to metals.

Q: Polymers are essentially long chains of hydrocarbon molecules.

R: Today, polymers as strong as metals have been developed.

S: These have replaced the traditional chromium-plated metallic bumpers in cars.

S6: Many Indian Institutes of Science and Technology run special programmes on polymer science.

(A) QRSP

(B) RSQP

(C) RQSP

(D) QRPS

Correct Answer: (D) QRPS

SOLUTION:

Tracking a repeated key phrase across the sentences is often the fastest way to solve these jumbles, and here the phrase “alternative to metals” links two sentences directly.

1. S1 opens by saying metals are being replaced by polymers, so the next sentence should explain what a polymer actually is: that is Q.
2. After defining polymers, the passage should explain why they can replace metals; R (strength) and P (cost and ease of processing) are both reasons, with P's ending phrase “viable alternative to metals” echoing and concluding the point R started, so R must come before P.
3. S (“these have replaced the traditional... bumpers”) needs an antecedent for “these”, and the only earlier sentence discussing why polymers replace metal parts is P, so S follows P as its concrete example.
4. Reading in full: “Metals are being replaced by polymers (S1). Polymers are chains of hydrocarbons (Q). Today, polymers as strong as metals exist (R). Above all, they are cheaper and easier to process, a viable alternative to metals (P). These have replaced chromium bumpers in cars (S). Institutes run polymer science programmes (S6).” This flows logically start to finish.

So the correct answer is option D, QRPS.

Quick Tip: Q defines polymers right after the intro; R and P both explain why they're viable, with P's phrase “alternative to metals” concluding that point before S gives a concrete example.



. Choose the word which best expresses the meaning of the given word.

FRUGALITY

- (A) Foolishness
- (B) Extremity
- (C) Enthusiasm
- (D) Economy

Correct Answer: (D) Economy

SOLUTION:

“Frugality” is a fairly common word describing a personal trait, so recalling its everyday usage (someone being “frugal” with money) points directly to the answer.

1. A frugal person avoids unnecessary spending and uses resources carefully.
2. “Foolishness”, “extremity”, and “enthusiasm” all describe unrelated qualities that have nothing to do with careful spending.
3. “Economy”, used in the sense of thriftiness or careful use of resources, is the closest match to “frugality”.

So the correct answer is option D, economy.

Quick Tip: Frugality means being careful and economical with money, matching “economy” in the sense of thriftiness.



. Choose the word which best expresses the meaning of the given word.

HARBINGER

- (A) Messenger
- (B) Steward
- (C) Forerunner
- (D) Pilot

Correct Answer: (C) Forerunner

SOLUTION:

The best way to pin down “harbinger” is to recall a common phrase using it, like “a harbinger of change”, which highlights its specific “advance sign” meaning.

1. A harbinger signals or foretells that something is about to happen, arriving just ahead of the main event.
2. “Messenger” only carries information, without necessarily implying that it signals something about to occur; “steward” and “pilot” both describe unrelated roles (managing or navigating).
3. “Forerunner” precisely captures this “comes before and signals what follows” sense.

So the correct answer is option C, forerunner.

Quick Tip: A harbinger signals something about to happen, like “dark clouds are a harbinger of rain” — closest to “forerunner”.



. Choose the word which is the exact OPPOSITE of the given word.

EXODUS

- (A) Influx
- (B) Home-coming
- (C) Return
- (D) Restoration

Correct Answer: (A) Influx

SOLUTION:

Since “exodus” specifically implies a large-scale movement, the correct opposite should also describe a large-scale movement, just in the reverse direction.

1. “Exodus” = a mass movement OUT of a place.
2. “Home-coming” and “return” describe movement back to a place, but typically for an individual, not a mass movement, so they are close in direction but not matched in scale.
3. “Restoration” is unrelated, describing repair or recovery, not movement of people at all.
4. “Influx” = a mass movement INTO a place, matching “exodus” in scale while reversing the direction.

So the correct answer is option A, influx.

Quick Tip: Exodus is a MASS departure; its true opposite needs to match that scale — a mass arrival, i.e. “influx”.

• • •

. Choose the word which is the exact OPPOSITE of the given word.

EQUANIMITY

- (A) Resentment
- (B) Dubiousness
- (C) Duplicity
- (D) Excitement

Correct Answer: (D) Excitement

SOLUTION:

Since “equanimity” is fundamentally about a calm, steady state of mind, its opposite should describe the loss of that calm, not just any negative trait.

1. “Resentment”, “dubiousness”, and “duplicity” each describe specific negative qualities (anger, doubt, dishonesty), but none of them is specifically about losing composure or calm.
2. “Excitement” directly describes a heightened, agitated emotional state, the direct opposite of staying calm and composed.

So the correct answer is option D, excitement.

Quick Tip: Equanimity means calm composure; its direct opposite is a heightened, agitated state — excitement.

• • •

. Find the odd one out from the group of words.

- (A) Bludgeon
- (B) Dragon
- (C) Black Jack
- (D) Order

Correct Answer: (B) Dragon

SOLUTION:

The quickest way to solve this kind of “odd one out” question is to test each word in a simple verb sentence and see which one fails.

1. “They bludgeoned him” — works as a verb.
2. “They blackjacked him into signing” — works as a verb.
3. “She ordered the report” — works as a verb.
4. “They dragoned him” — does not work; “dragon” has no accepted verb form in English.

Three of the four words double as both nouns and verbs, but “dragon” only works as a noun.

So the correct answer is option B, dragon.

Quick Tip: Test each word as a verb in a sentence; three work as both noun and verb, but “dragon” is noun-only.

• • •

. Each pair of capitalized words given is followed by four pairs of words. Select the pair that does NOT express a relationship similar to that expressed by the capitalized pair.

KERNEL : SHELL

- (A) Caterpillar : Pupa
- (B) Larva : Cocoon
- (C) Lassitude : Syncope
- (D) Passenger : Car

Correct Answer: (D) Passenger : Car

SOLUTION:

The cleanest way to see the odd one out here is to ask, for each pair, “are both words parts, stages, or states of one single underlying subject, or are they two separate, unrelated things?”

1. **Kernel : Shell:** Both belong to the same single seed; the shell is the seed's own outer covering.
2. **Caterpillar : Pupa:** Both are stages of the same single insect's life cycle.
3. **Larva : Cocoon:** The cocoon is spun by the larva itself, around itself, so both belong to the same organism.
4. **Lassitude : Syncope:** Both are physical states that can occur in the same single body.
5. **Passenger : Car:** A person and a separately manufactured vehicle. The car is not produced by, grown from, or an inherent part of the passenger at all; it is simply something the passenger happens to be inside of.

Every pair except the last describes two aspects of one single underlying subject; passenger and car are two independent things with only an incidental spatial relationship.

So the correct answer is option D, Passenger : Car.

Quick Tip: In every other pair, both words belong to or arise from the SAME single subject; a passenger and a car are simply two separate, unrelated things.



. Choose the correct option.

Both of them _____ since their childhood.

- (A) are working here
- (B) work here
- (C) have been working
- (D) are liking to work

Correct Answer: (C) have been working

SOLUTION:

“Since” is one of the clearest grammar signal words in English: whenever a sentence names a specific starting point with “since”, the verb almost always needs to be present perfect (continuous or simple).

1. “Since their childhood” names a starting point in the past that continues up to now.
2. Simple present (“work here”) and present continuous (“are working here”) both describe the present only, without connecting back to that past starting point.
3. “Are liking” is also grammatically awkward, since “like” does not typically take the continuous “-ing” form.
4. “Have been working” is present perfect continuous, the tense built exactly for “an action that started at a point in the past and is still continuing”.

So the correct answer is option C, have been working.

Quick Tip: “Since + a starting point” signals present perfect continuous tense: “have been working”.

. Choose the correct option.

Although initial investigations pointed towards him, _____

- (A) the preceding events corroborated his involvement in the crime.
- (B) the additional information confirmed his guilt.
- (C) the subsequent events established that he was guilty.
- (D) the subsequent events proved that he was innocent.

Correct Answer: (D) the subsequent events proved that he was innocent.

SOLUTION:

“Although” is a strong signal word: whatever follows it must genuinely contrast with, not agree with, the first half of the sentence.

1. The first half says early evidence pointed to him being guilty.
2. **Option A:** Uses “preceding” (before), which is the wrong direction in time, and then agrees with guilt rather than contrasting it.
3. **Option B:** Simply confirms guilt, no contrast at all.
4. **Option C:** Gets the time direction right (“subsequent” = later) but still agrees with guilt rather than contrasting the initial suspicion.
5. **Option D:** Gets both right: “subsequent” correctly describes later events, and “proved innocent” genuinely contrasts with the initial suspicion of guilt, exactly matching the logic “although” requires.

So the correct answer is option D.

Quick Tip: “Although” demands a genuine contrast: early suspicion of guilt must be followed by something that goes against it, like proof of innocence.