

GRE Quant Practice Test 7

Question 1

Aperture Industries is made up of 370 employees who work a total of 11,000 hours per week. If the number of weekly hours per employee has a normal distribution and standard deviation of 6 hours, approximately how many employees work more than 36 hours per week?

Possible Answers:

55

36

47

59

64

Question 2

Max has 5 red marbles and 3 green marbles. He meets his friend Bob who has 4 white marbles and 4 green marbles. They combine them into a bag and pull individual marbles out one at a time with replacement.

Quantity A: The probability of picking a green marble from only Max's collection of marbles

Quantity B: The probability of picking a green marble from the combined bag of Max and Bob's marbles

Possible Answers:

The relationship cannot be determined from the information given.

Quantity B is greater.

Quantity A is greater.

The two quantities are equal.

Question 3

At Jill's school fair, there is a game with 25 balloons hung on a dart board. 10 are blue, 8 are red, and 7 are green. Jill throws a dart and pops a blue balloon. What is the probability that the next balloon she hits will also be blue?

Possible Answers:

$$3/5$$

$$5/12$$

$$9/25$$

$$2/5$$

$$3/8$$

Question 4

The dealer gives you 4 cards from a regular 52-card deck, without replacement. What is the probability of receiving a spade, a heart, a diamond, and then a club, in that order?

Possible Answers:

$$(4/13) * (4/12) * (4/11) * (4/10)$$

$$(13/52) * (12/51) * (11/50) * (10/49)$$

$$(13/52) * (13/51) * (13/50) * (13/49)$$

$$(4/13) * (4/13) * (4/13) * (4/13)$$

$$(13/52) * (13/52) * (13/52) * (13/52)$$

Question 5

There are 6 photos in a bag, numbered 1 to 6. The proportions of photos, $P(i)$ for number i , are as follows: $P(1) = 1/4$, $P(2) = 1/8$, $P(3) = 1/8$, $P(4) = 1/8$, $P(5) = 1/8$, $P(6) = 1/4$. If a photo is drawn at random from the bag, what is the chance that the number on the photo is 3 or greater?

Possible Answers:

$\frac{1}{2}$

$\frac{5}{8}$

$\frac{1}{4}$

$\frac{3}{8}$

$\frac{3}{4}$

Question 6

Three cars, A , B , and C , are in a race. A is twice as likely to win as B , and B is twice as likely to win as C . What is the probability that B or C wins?

Possible Answers:

$\frac{3}{4}$

$\frac{2}{3}$

$\frac{1}{7}$

$\frac{1}{2}$

$\frac{3}{7}$

Question 7

A singing group has 10 boys and 20 girls. Half the boys and half the girls have blue eyes. What is the probability that a student chosen at random from the group is a boy OR has blue eyes?

Possible Answers:

$\frac{1}{6}$

$\frac{1}{3}$

1/5

2/3

1/2

Question 8

There are 31 students in the library.

Quantity A: The probability that all students have their birthdays in January. (There are 31 days in January).

Quantity B: The probability that all students have their birthdays on a Saturday this year. (Assume there are 52 Saturdays in a year).

Possible Answers:

The two quantities are equal.

Quantity B is greater.

The relationship cannot be determined from the information given.

Quantity A is greater.

Question 9

A high school has 200 students. 120 are male, 50 are upper division students, and 40 are upper division male students. What is the probability of choosing a lower division female student, given the student is female?

Possible Answers:

7/20

2/5

7/8

$1/4$

$7/15$

Question 10

Out of 25 dresses, 9 have defects. Of those 9 defective dresses, 6 have holes and 3 have rips. What is the probability that a randomly selected defective dress has a rip, given that it has a defect?

Possible Answers:

$2/3$

$1/3$

$4/9$

$3/5$

$1/9$