

GRE Quant Practice Test 8

Question 1

If you throw a die three times, what is the probability of getting a 1 on at least one of the three throws?

Possible Answers:

$91/216$

$125/216$

$5/6$

$25/36$

$1/3$

Question 2

Every day is either rainy or sunny. Mondays are rainy with probability $3/5$. Tuesdays are sunny with probability $1/4$. Wednesdays are also sunny with probability $2/3$. What is the probability that the weather is the same on Monday, Tuesday, and Wednesday?

Possible Answers:

$13/60$

$1/15$

$3/20$

$15/19$

$1/8$

Question 3

16 dogs and 21 cats are up for adoption at the pound. 12 of these animals are brown and 19 are female. What is the probability of randomly selecting a brown animal?

Possible Answers:

16/19

12/37

Cannot be determined

19/37

12/19

Question 4

What is the probability of pulling 2 spades out of a standard deck of cards without replacement?

Possible Answers:

$$\frac{1}{4}$$

$$\frac{1}{17}$$

$$\frac{1}{16}$$

$$\frac{2}{17}$$

$$\frac{2}{52}$$

Question 5

A study was conducted to determine the effectiveness of a vaccine for the common cold (Rhinovirus sp.). 1000 patients were studied. Of those, 500 received the vaccine and 500 did not. The patients were then exposed to the Rhinovirus and the results were tabulated.

Patient Age Group	Vaccinated	Unvaccinated
Under 18	18	63
18-30	4	32
31-50	5	29
51-70	4	51
Over 70	19	75

TABLE 1: *Number of patients who caught the Rhinovirus*

Table 1 shows the number of vaccinated and unvaccinated patients in each age group who caught the cold.

In order to determine the effectiveness of the vaccine, scientists want to show the impact of the vaccine on a patient's odds of catching a cold.

A patient who receives the vaccination is _____ to catch Rhinovirus than an unvaccinated patient.

Possible Answers:

80% less likely

20% less likely

just as likely

80% more likely

20% more likely

Question 6

A fair six-sided die is thrown.

Quantity A: The probability that the die will show either a "6" or an odd number.

Quantity B: $\frac{2}{3}$

Possible Answers:

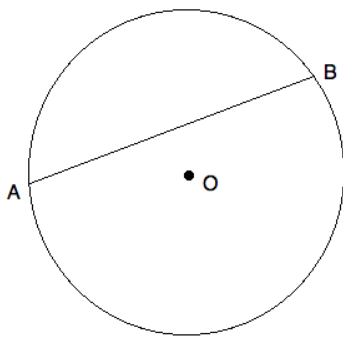
Quantity B is greater.

The relationship cannot be determined from the information given.

The two quantities are equal.

Quantity A is greater.

Question 7



O is the center of the circle above.

The circumference of the circle above is

30π

.

Quantity A: The length of

AB

.

Quantity B:

30

Which of the following is true?

Possible Answers:

Quantity B is larger.

The relationship cannot be determined.

The two quantities are equal.

Quantity A is larger.

Question 8

What is the circumference of a circle with an area of 36π ?

Possible Answers:

None of the other answers

32

15π

12π

6π

Question 9

Circle A has an area of

121π

. What is the perimeter of an enclosed semi-circle with half the radius of circle A?

Possible Answers:

22π

11π

$5.5\pi+11$

$$5.5\pi+5.5$$

$$11\pi+5.5$$

Question 10

$$x \geq 1$$

Quantity A: The circumference of a circle with radius

$$24x$$

Quantity B: The area of a circle with a diameter one fourth the radius of the circle in Quantity A

Which of the following is true?

Possible Answers:

Quantity A is larger.

The two quantities are equal.

Quantity B is larger.

The relationship between the two values cannot be determined.