

Questions Day 8

5 Practice GMAT Math Questions

1. If $5^A = B$, what is A?

(1) $B = 25$

(2) $B^3 = 15,625$

- A. Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- C. Both statements TOGETHER are sufficient, but NEITHER one ALONE is sufficient.
- D. EACH statement ALONE is sufficient.
- E. Statements (1) and (2) TOGETHER are NOT sufficient.

2. In a store the ratio of fish to cats to bunnies in stock is 3 : 7 : 11. If the shop carries 196 fish and bunnies total in stock, how many fish are there?

- A. 42
- B. 62
- C. 94
- D. 104
- E. 150

3. At a contest with 1,500 participants, $\frac{1}{2}$ of the people are aged 8 to 12. Next year, the number of people aged 8 to 12 will increase by $\frac{1}{3}$. After this change, what percentage of the total 1,500 people will the 8- to 12-year-olds represent?

- A. 33%
- B. 40%
- C. 50%
- D. 55%
- E. $66\frac{2}{3}\%$

4. The points A (-2, 3) and B (1, 7) lie on the coordinate plane. What is the length of line segment AB?

- A. 3
- B. 4
- C. 5
- D. 6

E. 7

5. If A and B are positive integers, is (A + B) a prime number?

(1) $A = 1$

(2) $B = 2 \times 3 \times 5 \times 7$

- A. Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- C. Both statements TOGETHER are sufficient, but NEITHER one ALONE is sufficient.
- D. EACH statement ALONE is sufficient.
- E. Statements (1) and (2) TOGETHER are NOT sufficient.

5 Practice GMAT Verbal Questions

6. Sleeping pills had been showing up with regularity as a factor in traffic arrests, sometimes involving drivers that say they have no memory of driving.

- A. Sleeping pills had been showing up with regularity as a factor in traffic arrests
- B. Sleeping pills had been showing up with regularity as factors in traffic arrests
- C. Sleeping pills have been showing up with regularity as a factor in traffic arrests
- D. Sleeping pills have been showing up with regularity as factors in traffic arrests
- E. Sleeping pills have been showing up with regularity in traffic arrests

7. Activity in Australia is regulated by the Australian Treaty, which was signed in 1959 by 12 countries and prohibits any military activity, supports scientific research, and is giving protection to the continent's ecozone.

- A. which was signed in 1959 by 12 countries and prohibits any military activity, supports scientific research, and is giving protection to the continent's ecozone
- B. which was signed in 1959 by 12 countries and prohibits any military activity, supports scientific research, and protects the continent's ecozone
- C. which, had being signed in 1959 by 12 countries, prohibits any military activity, supports scientific research, and protects the continent's ecozone
- D. which was signed in 1959 by 12 countries prohibiting any military action, and supporting scientific research and the continent's resource protection
- E. having been signed in 1959 by 12 countries and prohibits any military activity, supports scientific research, and protects the continent's ecozone

8. Advertisement: Last year, Morgan Stanley continued its strong record of investment performance. Investors who included them in their portfolios realized an average gain of 20% across all of their investment assets, nearly double the market return. Therefore, investors interested in high returns should consider adding Morgan Stanley to their portfolios.

The claim in the advertisement above is based on which of the following assumptions?

- A. Morgan Stanley is one of the oldest and largest mutual funds in the investment industry.
- B. A substantial part of the 20% portfolio appreciation was attributable to the returns of Morgan Stanley and this level of fund's performance is likely to persist in the future.
- C. Last year, Morgan Stanley outperformed all other funds with similar style.
- D. The fund is suitable to all investors.
- E. The fees charged by Morgan Stanley are among the lowest in the investment industry.

9. In a helpful book on text-based electronic files, a well known scientist differentiated latent semantic indexing, which is a technique designed to analyze relationships among the words within documents, with vector space models, which can search efficiently using different indices.

- A. latent semantic indexing, which is a technique designed to analyze relationships among the words within documents, with vector space models, which can
- B. between latent semantic indexing, which is a technique designed to analyze the relationships among words within documents, with vector space models, which can
- C. among latent semantic indexing, which is a technique designed to analyze the relationships among words within documents, and vector space models, which can
- D. latent semantic indexing, which is a technique designed to analyze the relationships among words within documents, and vector space models, which can
- E. between latent semantic indexing, which is a technique designed to analyze relationships among the words within documents, and vector space models, which can

10. Though the British army has one of the largest fleets in the world, with craft all across the globe, they rarely deploy more than half of all available ships at any given time.

- A. they rarely deploy
- B. they have rarely deployed
- C. rarely it has deployed
- D. it rarely deploys
- E. it is rarely deploying

Answers to GMAT Math Questions

1. The answer is D

(1) SUFFICIENT: If $B = 25$, we know that $5^A = 25$. Thus A must equal 2.

(2) SUFFICIENT: If $y^3 = 15,625$, y must equal 25.

The correct answer is D.

2. The answer is A

$$\text{Fish} + \text{Bunnies} = 196$$

$$3x + 11x = 196$$

$$14x = 196$$

$$x = 14$$

$$3x = 3(14) = 42$$

The correct answer is A.

3. The answer is E

The new percentage is $1,000/1,500$, or $2/3$, which corresponds to $66\frac{2}{3}\%$.

The correct answer is E.

4. The answer is C

The distance between any two points on the coordinate plane can be found from the following formula:

$$D^2 = (x_b - x_a)^2 + (y_b - y_a)^2$$

$$D^2 = 32 + 42$$

$$D^2 = 9 + 16$$

$$D^2 = 25$$

$$D = 5$$

The correct answer is C.

5. The answer is C

(1) INSUFFICIENT: Given only that x equals 1, we can't decide whether $(A + B)$ is a prime number. If $B = 2$ then $(A + B) = 3$ which is prime. But if $y = 3$ then $(A + B) = 4$ which is not prime.

(2) INSUFFICIENT: Given only that $B = 2 \times 3 \times 5 \times 7$, we can't decide whether $(A + B)$ is a prime number.

(1) AND (2) SUFFICIENT: Combining the two statements tells us that:

$$(A + B) = 1 + 2 \times 3 \times 5 \times 7$$

$$(A + B) = 211$$

The correct answer is C.

Answers to GMAT Verbal Questions

6. The answer is C

The sentence incorrectly uses the past perfect verb phrase "had been showing up." The past perfect is only used when a sentence involves two past events.

It is also correct to use the singular "factor" in this sentence, and not the plural "factors."

7. The Answer is B

The phrase "is giving protection to the continent's ecozone" is not parallel in structure to "was signed in 1959 by 12 countries," "prohibits any military activity" and "supports scientific research."

Answer B correctly formats this sentence.

8. The answer is B.

The claim has the following as an assumption: A substantial part of the 20% portfolio appreciation was attributable to the returns of Morgan Stanley and this level of fund's performance is likely to persist in the future.

9. The answer is E

The issue being tested in this question is:

The phrasing used in the original question (differentiated x with y) is not idiomatically correct and should be replaced by the correct idiom (differentiated between x and y)

In order to ensure clarity and improve flow, the sentence should be constructed so that the format is consistent.

10. The answer is D

The sentence uses the plural pronoun "they" which is incorrect. The proper pronoun to use in reference to a singular subject is "it" as opposed to "they."