GRE Quantitative Reasoning Practice Test-6, 2024

Time Allowed : 1 Hour 58 Minutes	**Maximum Marks :** 340

General Instructions

Read the following instructions very carefully and strictly follow them:

1. There is no penalty for incorrect answers on the Verbal Reasoning and Quantitative Reasoning sections. This means you should always answer every question, even if you have to guess.
2. Within any section of the test, you can mark questions you want to review and change your answers as long as the time for that section has not expired.
3. The Analytical Writing section is always presented first. The Verbal Reasoning and Quantitative Reasoning sections may appear in any order after the essay.
4. The test is taken on a computer, and test-takers are provided with scratch paper or a small whiteboard for notes.
5. The Quantitative Reasoning section includes an on-screen calculator.
6. There are no breaks during the test. Leaving your seat at any point will not stop the timer for the current section.

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1. A number n is 20% less than another number m. If $m = 50$, what is n?
(A) 35
(B) 40
(C) 42
(D) 45
(E) 48

2. If a and b are positive integers such that $a \times b = 36$, and a is 3 less than twice b, what is the value of $a + b$?
(A) 11
(B) 13
(C) 15
(D) 17
(E) 19

3. A bakery sells cupcakes in packs of 6 and packs of 9. If p packs of 6 and q packs of 9 are bought, and the total number of cupcakes is 90, what is the smallest possible value of $p + q$?
(A) 7
(B) 8
(C) 9
(D) 10

(E) 11

4. If x is an even integer and $y = 3x + 5$, which of the following must be odd?
(A) x
(B) y
(C) $2x + y$
(D) $x + y$
(E) $2y$

5. If a number n leaves a remainder of 3 when divided by 5, what is the remainder when $2n$ is divided by 5?
(A) 1
(B) 2
(C) 3
(D) 4
(E) 0

6. If $x^2 - 6x + 9 = y$, what is the value of y when $x = 4$?
(A) 4
(B) 5
(C) 6
(D) 7
(E) 8

7. Solve for x if $\frac{x+2}{x-3} = 2$.
(A) 4
(B) 5
(C) 6
(D) 7
(E) 8

8. If $f(x) = 2x^2 - 3x + 4$, what is $f(2) - f(-2)$?
(A) 20
(B) 22
(C) 24
(D) 26
(E) 28

9. If $3x + 2y = 6$ and $2x - y = 4$, what is $x + y$?
(A) 0
(B) 1
(C) 2
(D) 3
(E) 4

10. If $x^2 - 4x + 4 = 0$, what is the sum of the roots?
(A) -4

(B) -2
(C) 0
(D) 2
(E) 4

11. In triangle ABC, if $AB = 6$, $BC = 8$, and $AC = 10$, what is the area of the triangle?
(A) 24
(B) 25
(C) 26
(D) 27
(E) 28

12. A rectangle has a length that is twice its width. If the perimeter is 48 units, what is the area of the rectangle?
(A) 96
(B) 108
(C) 120
(D) 132
(E) 144

13. In a circle with a radius of 5, what is the length of an arc that subtends a central angle of 120 degrees?
(A) $\frac{5\pi}{3}$
(B) $\frac{10\pi}{3}$
(C) 5π
(D) 10π

14. A cube has a surface area of 54 square units. What is the volume of the cube?
(A) 27
(B) 36
(C) 45
(D) 54
(E) 64

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16. A dataset has the following values: 10, 12, 15, 15, 20, 22. What is the range and the median of the dataset?
(A) Range: 10, Median: 15
(B) Range: 12, Median: 15
(C) Range: 12, Median: 16

(D) Range: 10, Median: 16
(E) Range: 10, Median: 15.5

17. In a survey, 60% of respondents prefer coffee, 30% prefer tea, and the remaining prefer neither. If 100 people responded, how many prefer neither?
(A) 5
(B) 10
(C) 15
(D) 20
(E) 25

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19. A bag contains 3 red, 5 blue, and 7 green balls. If a ball is drawn at random, what is the probability it is either red or blue?
(A) $\frac{1}{3}$
(B) $\frac{1}{2}$
(C) $\frac{2}{3}$
(D) $\frac{3}{5}$
(E) $\frac{4}{5}$

20. Question: If the probability of rain on any given day is 0.4, what is the probability that it will rain on exactly 2 out of the next 3 days?
(A) 0.192
(B) 0.288
(C) 0.348
(D) 0.432
(E) 0.512

Topic - Probability, Binomial Distribution