# GRE 2025 Quant Sample Paper Set 2

Time Allowed:	Maximum Score:	Sections:
About 3 hrs 45 mins	340  (Verbal+Quant) + 6	3  Main + 1  Unscored
	(AWA)	

#### **General Instructions**

#### Read the following instructions very carefully and strictly follow them:

- 1. The GRE General Test has a duration of about 3 hours 45 minutes, divided into six sections (including one unscored/experimental section).
- 2. The test consists of the following sections:
  - Analytical Writing Assessment (AWA) 2 tasks, 30 minutes each.
  - Verbal Reasoning 2 sections, 20 questions each, 30 minutes per section.
  - Quantitative Reasoning 2 sections, 20 questions each, 35 minutes per section.
  - Unscored/Research Section May appear anytime (not counted in score).
- 3. Scoring Pattern:
  - Verbal Reasoning: 130–170 (in 1-point increments).
  - Quantitative Reasoning: 130–170 (in 1-point increments).
  - Analytical Writing: 0–6 (in half-point increments).
- 4. No negative marking is applied in the GRE. Test-takers are advised to attempt all questions.
- 5. Only an on-screen calculator is allowed for Quantitative Reasoning. No physical calculators, mobile devices, or electronic gadgets are permitted.
- 6. Breaks: A 10-minute break is provided after the third section; one-minute breaks between other sections.

# Quantitative Reasoning

**Directions:** For each question, indicate the best answer using the directions given.

**Notes:** All numbers used are real numbers.

All figures are assumed to lie in a plane unless otherwise indicated.

Geometric figures, such as lines, circles, triangles, and quadrilaterals, **are not necessarily** drawn to scale. That is, you should **not** assume that quantities such as lengths and angle measures are as they appear in a figure. You should assume, however, that lines shown as straight are actually straight, points on a line are in the order shown, and more generally, all

geometric objects are in the relative positions shown. For questions with geometric figures, you should base your answers on geometric reasoning, not on estimating or comparing quantities from how they are drawn in the geometric figure.

Coordinate systems, such as *xy*-planes and number lines, **are drawn to scale**; therefore, you can read, estimate, or compare quantities in such figures from how they are drawn in the coordinate system.

Graphical data presentations, such as bar graphs, circle graphs, and line graphs, **are drawn to scale**; therefore, you can read, estimate, or compare data values from how they are drawn in the graphical data presentation.

For each of Questions 1–9, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the following four answer choices. A symbol that appears more than once in a question has the same meaning throughout the question.

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

# 1. Quantity A: The dollar value of 1 Argentine peso Quantity B: The dollar value of 1 Kenyan shilling

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

#### 2. k is a digit in the decimal 1.3k5, and 1.3k5 is less than 1.33.

Quantity A: k

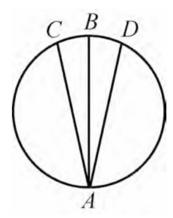
Quantity B: 1.

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

### 3. AB is a diameter of the circle. Compare:

Quantity A: The length of AB

Quantity B: The average (arithmetic mean) of the lengths of AC and AD.



- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

# 4. Given that $st = \sqrt{10}$ . Compare:

Quantity A:  $s^2$ Quantity B:  $\frac{10}{t^2}$ 

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

# 5. Three consecutive integers have a sum of -84. Compare:

Quantity A: The least of the three integers

Quantity B: -28

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

### 6. In the xy-plane, the equation of line k is 3x - 2y = 0. Compare:

Quantity A: The x-intercept of line k

Quantity B: The y-intercept of line k

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

### 7. n is a positive integer that is divisible by 6. Compare:

Quantity A: The remainder when n is divided by 12

Quantity B: The remainder when n is divided by 18

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

# 8. Given that $\frac{1-x}{x-1} = \frac{1}{x}$ . Compare: Quantity A: x Quantity B: $-\frac{1}{2}$

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

# 9. Compare:

Quantity A: The median of the 24 integers

Quantity B: 50

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

Questions 10–25 have several different formats, including both selecting answers from a list of answer choices and numeric entry. With each question, answer format instructions will be given.

**Numeric-Entry Questions** 

These questions require a number to be entered by circling entries in a grid. If you are not entering your own answers, your scribe should be familiar with these instructions.

- 1. Your answer may be an integer, a decimal, or a fraction, and it may be negative.
- 2. Equivalent forms of the correct answer, such as 2.5 and 2.50, are all correct. Although fractions do not need to be reduced to lowest terms, they may need to be reduced to fit in the grid.
- 3. Enter the exact answer unless the question asks you to round your answer.
- 4. If a question asks for a fraction, the grid will have a built-in division slash (/). Otherwise, the grid will have a decimal point.
- 5. Start your answer in any column, space permitting. Circle no more than one entry in any column of the grid. Columns not needed should be left blank.
- 6. Write your answer in the boxes at the top of the grid and circle the corresponding entries. You will receive credit only if your grid entries are clearly marked, regardless of the number written in the boxes at the top.
- 11. In the xy-plane, line k is a line that does not pass through the origin. Which of the following statements individually provide(s) sufficient additional information to determine whether the slope of line k is negative?
- (A) The x-intercept of line k is twice the y-intercept of line k.
- (B) The product of the x-intercept and the y-intercept of line k is positive.
- (C) Line k passes through the points (a, b) and (r, s), where (a r)(b s) < 0.
- 12. The distance from Centerville to a freight train is given by the expression -10t + 115, and the distance from Centerville to a passenger train is given by the expression -20t + 150. The expressions above give the distance from Centerville to each of two trains t hours after 12:00 noon. At what time after 12:00 noon will the trains be equidistant from Centerville?
- (A) 1:30
- (B) 3:30
- (C) 5:10
- (D) 8:50
- (E) 11:30
- 13. The company at which Mark is employed has 80 employees, each of whom has a different salary. Mark's salary of \$43,700 is the second-highest salary in the

first quartile of the 80 salaries. If the company were to hire 8 new employees at salaries that are less than the lowest of the 80 salaries, what would Mark's salary be with respect to the quartiles of the 88 salaries at the company, assuming no other changes in the salaries?

- (A) The fourth-highest salary in the first quartile
- (B) The highest salary in the first quartile
- (C) The second-lowest salary in the second quartile
- (D) The third-lowest salary in the second quartile
- (E) The fifth-lowest salary in the second quartile

14. The point with coordinates (-6, -7) is the center of circle C. The point (-6, 5) lies inside circle C, and the point (8, -7) lies outside circle C. What is the radius of circle C?

- (A) 10
- (B) 11
- (C) 12
- (D) 13
- (E) 14

15. If  $-\frac{m}{19}$  is an even integer, which of the following must be true?

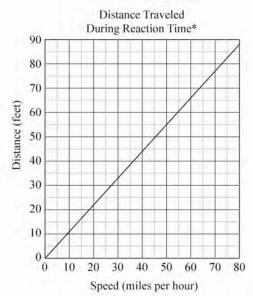
- (A) m is a negative number.
- (B) m is a positive number.
- (C) m is a prime number.
- (D) m is an odd integer.
- (E) m is an even integer.

16. The integer v is greater than 1. If v is the square of an integer, which of the following numbers must also be the square of an integer? Indicate all such numbers.

- (A) 81v
- (B)  $25v + 10\sqrt{v} + 1$
- (C)  $4v^2 + 4\sqrt{v} + 1$

Questions 17-20 are based on the data presented on this and the next page.

DISTANCE TRAVELED BY A CAR ACCORDING TO THE CAR'S SPEED WHEN THE DRIVER IS SIGNALED TO STOP



17. The speed, in miles per hour, at which the car travels a distance of 52 feet during reaction time is closest to which of the following?

- (A) 43
- (B) 47
- (C) 51
- (D) 55
- (E) 59

18. Approximately what is the total stopping distance, in feet, if the car is traveling at a speed of 40 miles per hour when the driver is signaled to stop?

- (A) 130
- (B) 110
- (C) 90
- (D) 80
- (E) 70

19. The total stopping distance for the car traveling at 60 miles per hour is approximately what percent greater than the total stopping distance for the car traveling at 50 miles per hour?

- (A) 22%
- (B) 30%
- (C) 38%
- (D) 45%
- (E) 52%

20. What is the least positive integer that is not a factor of 25! and is not a prime number?

- (A) 26
- (B) 28
- (C) 36
- (D) 56
- (E) 58

21. What is the least positive integer that is not a factor of 25! and is not a prime number?

- (A) 26
- (B) 28
- (C) 36
- (D) 56
- (E) 58

22. If 0 < a < 1 < b, which of the following is true about the reciprocals of a and b?

- (A)  $1 < \frac{1}{a} < \frac{1}{b}$ (B)  $\frac{1}{a} < 1 < \frac{1}{b}$ (C)  $\frac{1}{a} < \frac{1}{b} < 1$ (D)  $\frac{1}{b} < 1 < \frac{1}{a}$ (E)  $\frac{1}{b} < \frac{1}{a} < 1$

23. In the figure above, O and P are the centers of the two circles. If each circle has radius r, what is the area of the shaded region?

- (A)  $\frac{\sqrt{2}}{2}r^2$ (B)  $\frac{\sqrt{3}}{2}r^2$ (C)  $\sqrt{2}r^2$

- (D)  $\sqrt{3}r^2$
- $(E) 2\sqrt{3}r^2$

24. Of the 20 lightbulbs in a box, 2 are defective. An inspector will select 2 lightbulbs simultaneously and at random from the box. What is the probability that neither of the lightbulbs selected will be defective?

				/			
_	0	0	0		0	0	0
	1	1	1		1	1	1
	2	2	2		2	2	2
	3	3	3		3	3	3
	4	4	4		4	4	4
	5	5	5		5	5	5
	6	6	6		6	6	6
	7	7	7		7	7	7
	8	8	8		8	8	8
	9	9	9		9	9	9

25. What is the perimeter, in meters, of a rectangular playground 24 meters wide that has the same area as a rectangular playground 64 meters long and 48 meters wide?

- (A) 112
- (B) 152
- (C) 224
- (D) 256
- (E) 304