

GRE 2024 Quant Practice Test 18

Time Allowed : 1 Hour 58 Minutes

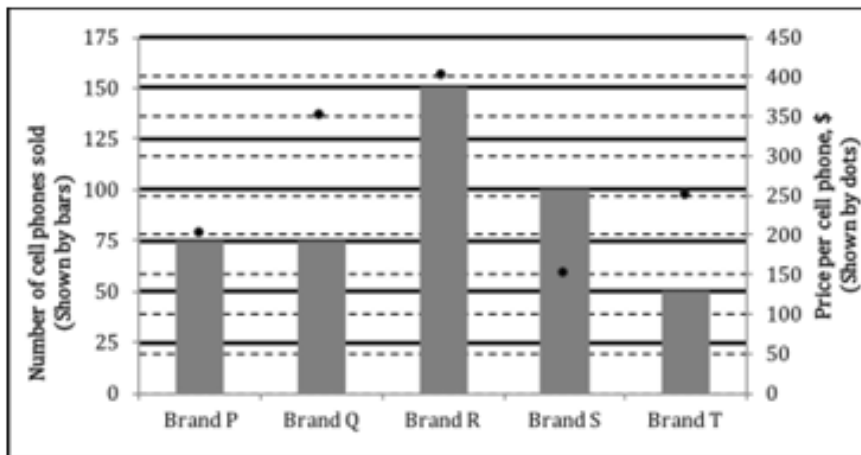
Maximum Marks : 340

General Instructions

Read the following instructions very carefully and strictly follow them:

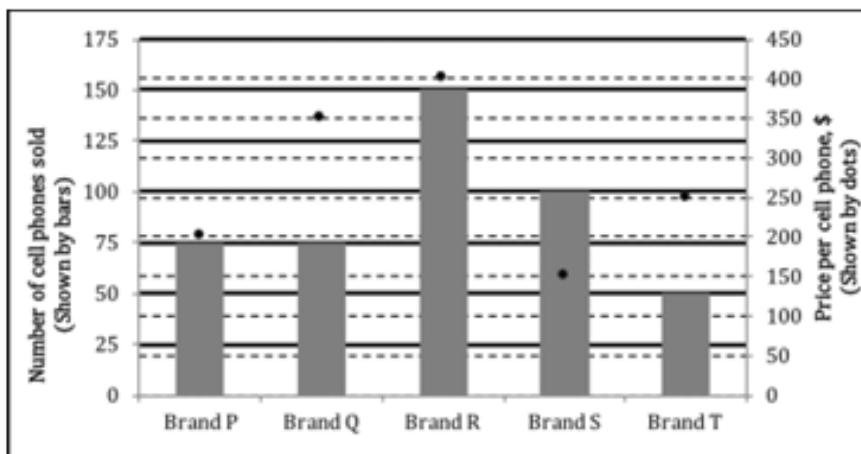
1. The GRE General Test is 1 hour and 58 minutes long (with one optional 10-minute break) and consists of 54 questions in total.
2. The GRE exam is comprised of three sections:
 - Quantitative Reasoning: 27 questions, 47 minutes
 - Verbal Reasoning: 27 questions, 41 minutes
3. You can answer the two sections in any order.
4. As you move through a section, you can skip questions, flag them for review, and return to them later within the same section.
5. When you have answered all questions in a section, you can review your responses before time expires.
6. If there is no time remaining in the section, you will automatically be moved to your optional break screen or the next section (if you have already taken your optional break).
7. Each review screen includes a numbered list of the questions in that section and indicates the questions you flagged.
8. Clicking a question number will take you to that specific question.
9. You may change any answer within the time allowed for that section.

1. At a certain store for a certain month, in a chart given below, the price per cell phone (in dollars) is shown by dots (read from right hand side vertical axis) and the number of cell phones sold (read from left hand side vertical axis).



What is the median price of the cell phones sold by the store in that month?

2. At a certain store for a certain month, in a chart given below, the price per cell phone (in dollars) is shown by dots (read from right hand side vertical axis) and the number of cell phones sold (read from left hand side vertical axis).



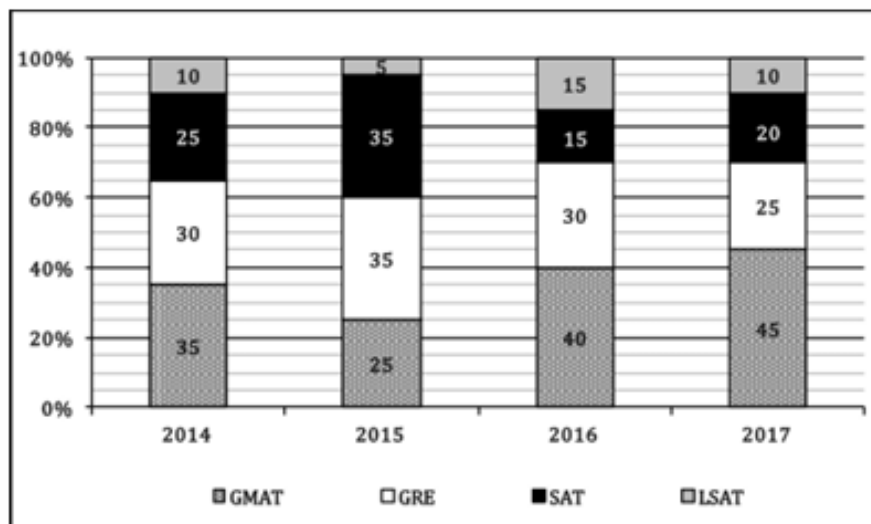
What is the mean price (nearest to a dollar) of the cell phone sold by the store in that month?

2. At a certain store for a certain month, in a chart given below, the price per cell phone (in dollars) is shown by dots (read from right hand side vertical axis) and the number of cell phones sold (read from left hand side vertical axis). What is the mean price (nearest to a dollar) of the cell phone sold by the store in that month?

- (A) \$255
- (B) \$268

- (C) \$274
- (D) \$285
- (E) \$300

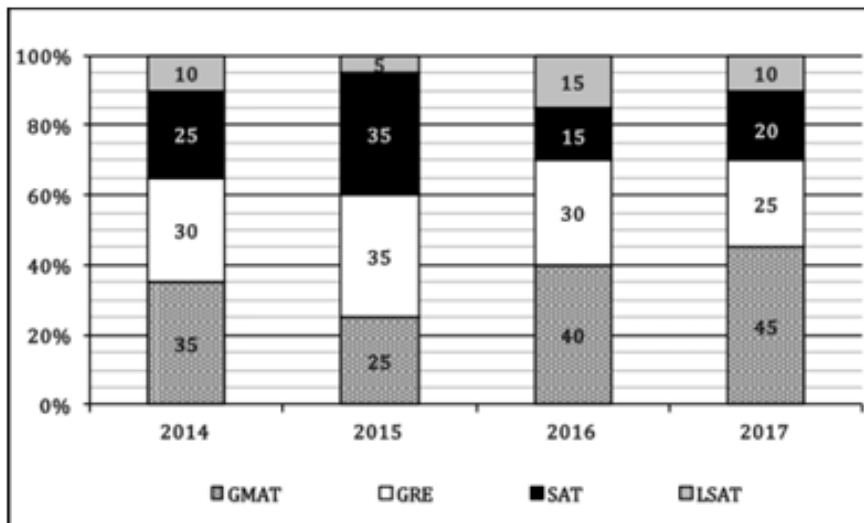
3. The following chart shows the percent distribution of the number of candidates enrolled in a certain test-prep company from 2014 to 2017 for four courses: GMAT, GRE, SAT and LSAT.



If the total number of candidates increased by 40% from the year 2014 to the year 2017, what is the simple annual percent increase (if necessary the whole number rounded) in the number of candidates for the GMAT course between 2014 and 2017?

- (A) 20%
- (B) 25%
- (C) 27%
- (D) 30%
- (E) 33%

4. The following chart shows the percent distribution of the number of candidates enrolled in a certain test-prep company from 2014 to 2017 for four courses: GMAT, GRE, SAT and LSAT.



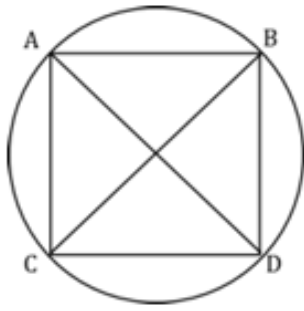
If the number of candidates in 2014 was 500, and there was a 20% increase in the number of candidates per year for the next two years, what is the number of candidates for the LSAT course in 2016?

- (A) 90
- (B) 95
- (C) 100
- (D) 108
- (E) 115

5. If x is an integer, how many possible values of x satisfy the equation: $(x - 2)^2(x + 1) = 1$?

- (A) 0
- (B) 1
- (C) 2
- (D) 3
- (E) 4

6. In the figure below, a square ABCD is inscribed in a circle. If the length of arc AB is 4π unit, what is the diameter of the circle?



7. A 120-milliliter mixture of Chemical X and water contained 40 percent Chemical X. A part of the mixture was removed and replaced with an equal quantity of water. If the resulting mixture contained 10 percent Chemical X, what is the volume of the mixture that was removed?

8. Suzy purchased at least one pen priced at \$13 each and at least one notebook priced at \$19 each. If the total price of the items purchased is \$58, what is the total number of pens and notebooks purchased by Suzy?

9. If $(a - 3)^2 + |b - 3| = 0$, what is the value of $a - b$?

10. If a group of students having an average age of 16 years joined a class, the average age of all the students in the class reduces from 18 years to 17 years. What is the ratio of the number of students who joined the class to the number of students who were initially in the class?

11. In a test, five students of a class scored 39, 37, 40, 34, and 36, respectively. If the sixth student scored n marks, for which of the following values of n does the average (arithmetic mean) score per student for the six students equal the median score?

Indicate all such values.

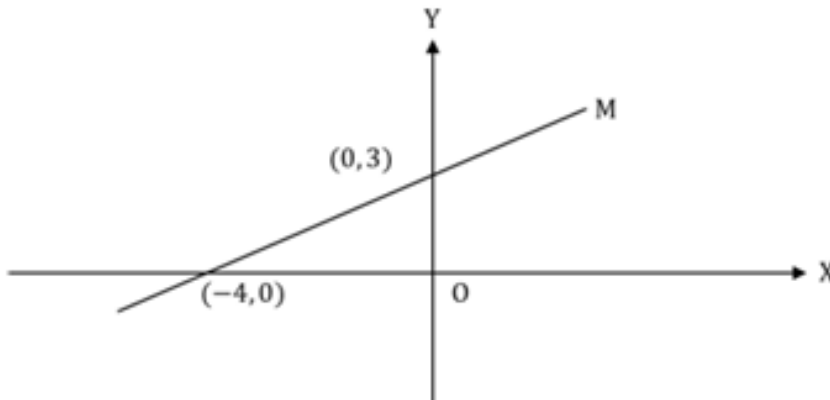
Note: Select one or more answer choices

(A) 33

(B) 37

12. The graph of which of the following equations is a straight line that is parallel to line M in the figure above and intersects the negative direction of Y-axis? Indicate all such equations.

[Note: Select one or more answer choices]



- A $4y+3x=0$
- B $4y-3x=-2$
- C $4y-3x=4$
- D $4y+3x=-4$
- E $4y-3x=-1$
- F $4y-3x=0$

13. Which of the following statements individually provide enough information to determine the number of students in a group?

Indicate all such statements.

[Note: Select one or more answer choices]

- (A) The number of ways 3 students can be selected from the group to form a team is 35.
- (B) The number of ways 3 students from the group can be seated in a row is 210.
- (C) The number of ways all the students from the group can be selected to form a team is 1.
- (D) The number of ways 3 students can be selected from the group to form a team equals the number of ways 4 students can be selected from the group to form a team.

14. What could be the values of integers from 180 to 300, inclusive, that leave the remainder 2 when divided by 15 and by 9?

Indicate all such statements.

[Note: Select one or more answer choices]

- (A) 182
- (B) 191
- (C) 197
- (D) 227
- (E) 242
- (F) 272
- (G) 281

15. In a certain batch of guests in a museum, there are 50 guests; each guest buys either a \$40 ticket or a \$60 ticket, with at least one guest of each ticket type. The average (arithmetic mean) value of ticket-receipts from the batch is more than \$50. If the average value of ticket-receipts is to be reduced to less than \$50 by including few new guests with \$40 tickets, what could definitely NOT be the number of new guests with \$40 tickets that could be included?

Indicate all such numbers.

[Note: Select one or more answer choices]

- (A) 1
- (B) 2
- (C) 3
- (D) 4

16. In a certain batch of guests in a museum, there are 50 guests; each guest buys either a \$40 ticket or a \$60 ticket, with at least one guest of each ticket type. The average (arithmetic mean) value of ticket-receipts from the batch is more than \$50. If the average value of ticket-receipts is to be reduced to less than \$50 by including few new guests with \$40 tickets, what could definitely NOT be the number of new guests with \$40 tickets that could be included?

Indicate all such numbers.

[Note: Select one or more answer choices]

- (A) 1
- (B) 2

- (C) 3
- (D) 4

17. If $x^2y^3 < 0$, which of the following must be true?

Indicate all such answers.

[Note: Select one or more answer choices]

- (A) $x > 0$
- (B) $xy < 0$
- (C) $x^2y < 0$
- (D) $xy^2 > 0$
- (E) $x^2 > 0$
- (F) $y^2 > 0$
- (G) $xy \neq 0$

18. If $ab \leq cd$, and none of c , and d is equal to 0, which of the following must be true?

Indicate all such answers.

[Note: Select one or more answer choices]

- (A) $-ab \leq cd$
- (B) $-ab \leq -cd$
- (C) $ba \leq dc$
- (D) $-ab \leq -cd$

19. David bought greater than 10 paperback books that cost \$8 each and greater than 8 hardcover books that cost \$20 each. If the total cost of all the books that he bought was between \$240 and \$300, exclusive, how many total books could he buy?

Indicate all such answers.

[Note: Select one or more answer choices]

- (A) 17
- (B) 18
- (C) 19
- (D) 20
- (E) 21
- (F) 22

20. If two interior angles of a quadrilateral ABCD are right angles and the degree measure of $\angle ABC$ is twice the degree measure of $\angle BCD$, what could be the measure of the largest interior angle of quadrilateral ABCD?

Indicate all such answers.

[Note: Select one or more answer choices]

- (A) 90°
 - (B) 105°
 - (C) 120°
 - (D) 135°
 - (E) 150°
 - (F) 180°
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