

# GMAT QUANT PRACTICE PAPER

1. In a certain shop, two security cameras are positioned in different locations. Each camera is the same distance from the cash register. Are the two cameras more than 13 meters apart?

1) The distance from each camera to the cash register is 9 meters.

2) The distance between the two cameras is 7 meters greater than the distance between each camera and the cash register.

2. Is the number of the boys in the class is more than the number of the girls?

(1) The Ratio of the number of boys to the total number of students is more than the ratio of the total number of the girls to the total number of boys.

(2) The ratio of the number of boys to the number of girls in the class is more than the ratio of the number of the girls to the number of the students in the class.

3. If  $xy \neq 0$ , is  $xy \leq yx$ ?

(1)  $x = y$

(2)  $x = 2y$

4. Is  $a + b > 0$ ?

(1)  $b > a$

(2)  $b^2 > a^2$

5. If  $a$ ,  $b$ ,  $c$ ,  $d$  and  $e$  are five consecutive positive integers. What is the unit's digit of  $ab * cd * eab * cd * e$ ?

(1)  $c = 5$

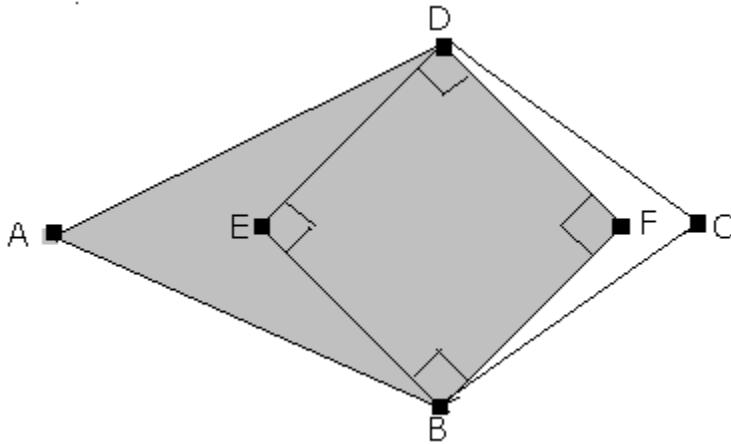
(2)  $a + b$  is six less than  $e + d$ .

6.  $S$  is a set with at least two numbers. Is the range of  $S$  greater than its arithmetic mean?

(1) The median of the set  $S$  is negative

(2) The mean and the median are equal

7.



What is the perimeter of the square BEDF?

- (1) The area of the shaded region is 100.
  - (2)  $\angle ADE = 30$  degrees.
8. A merchant discounted the sale price of a coat and the sale price of a sweater. Which of the two articles of clothing was discounted by the greater dollar amount?
- (1) The percent discount on the coat was 2 percentage points greater than the percent discount on the sweater.
  - (2) Before the discounts, the sale price of the coat was \$10 less than the sale price of the sweater.
9. In the standard  $(x,y)$  coordinate plane, what is the slope of the line containing the distinct points P and Q ?
- (1) Both P and Q lie on the graph of  $|x| + |y| = 1$ .
  - (2) Both P and Q lie on the graph of  $|x + y| = 1$ .
10. In the  $xy$ -plane, lines k and l intersect at the point  $(1,1)$ . Is the y-intercept of k greater than the y-intercept of l?
- (1) The slope of k is less than the slope of l.
  - (2) The slope of l is positive.
11.  $x^n = x^{(n+2)}$  for any integer n. Is it true that  $x > 0$ ?
- (1)  $x = x^2 - 2$
  - (2)  $2x < x^5$
12. If  $a^2b^2c^3a^2b^2c^3 = 4500$ . Is  $b+c = 7$  ?
- (1) a, b and c are positive integers
  - (2)  $a > b$

13. If  $x^2 = 2x$ , what is the value of  $x$  ?

(1)  $2x = (x^2)^3$

(2)  $x = 2x - 2$

14. A Computer chip supplier charges R\$4 per chip plus a one-time R\$50 payment and requires 11 days for production, handling and delivery time. In case of urgent requests, the supplier demands an additional R\$50 payment and a surcharge of R\$2 per chip per day for each day less than the standard 11 days. A dealership orders 50 chips 2 days prior to his desired pickup date, by what percent this urgent request is greater than a regular order?

- A) 160%
- B) 200%
- C) 380%
- D) 450%
- E) 556%

15. Karen was the winner of a hot dog eating competition. There was a total of 13 contenders at the competition. Comparing the number of eaten hot dogs by contender the median was 7 hot dogs and the average was 13 hot dogs. Karen ate more hot dogs than any other contender and the combination of eaten hot dogs is so that she ate the least number of hot dogs possible. How many hot dogs did Karen eat? (Consider hot dogs are only computed when eaten completely).

- A) 20
- B) 21
- C) 22
- D) 26
- E) 75

16. Parikshit invests Rs. 1546 in BNP bank at a certain rate of compound interest per annum. At the end of 8 years, he finds that his money has doubled. What approximately is the rate of interest BNP bank paid him?

- (A) 9%
- (B) 12%
- (C) 15%
- (D) 16%
- (E) 18%

17. Jug contains water and orange juice in the ratio 5:7 . another jug contains water and orange juice in ratio 7 : 2 . In what proportion should these 2 liquids be mixed to give a water and orange juice in ratio 3 : 4

- A. 4 : 5
- B. 85 : 3

C. 88 : 3

D. 2 : 3

E. 87 : 7

18. First 15 positive integers are written on a board. If two numbers are selected one by one from the board at random (the numbers are not necessarily different), what is the probability that the sum of these numbers is odd?

A)  $\frac{49}{225}$

B)  $\frac{56}{225}$

C)  $\frac{98}{225}$

D)  $\frac{105}{225}$

E)  $\frac{112}{225}$

19. Each of the 200 students in a class enrolled in at least one of the three subjects: Physics, Chemistry and Mathematics. If 30 participated in Physics, 150 participated in Chemistry and 100 participated in Mathematics and if "x" participated in all the three activities, then what could be the maximum value of x?

A. 10

B. 20

C. 30

D. 40

E. 50

20. Of the three-digit positive integers whose three digits are all different and nonzero, how many are odd integers greater than 700?

(A) 84

(B) 91

(C) 100

(D) 105

(E) 243

21. The ratio, by volume, of acid to base to water in a certain solution is 4:15:20. The solution is altered so that the ratio of acid to base is 3:5 and the ratio of acid to water remains same. If the solution initially contained 30mm of base, what is the minimum amount of water that could be added in the second phase?

A) 18

B) 36

C) 50

D) 60

E) 90

22. Deb normally drives to work in 45 minutes at an average speed of 40 miles per hour. This week, however, she plans to bike to work along a route that decreases the total distance she usually travels when driving by 20% . If Deb averages between 12 and 16 miles per hour when biking, how many minutes earlier will she need to leave in the morning in order to

ensure she arrives at work at the same time as when she drives?

- A. 135
- B. 105
- C. 95
- D. 75
- E. 45

23. What is the probability that a number chosen between 1 to 15000 both included has exactly 3 factors.

- A.  $\frac{7}{3000}$
- B.  $\frac{1}{500}$
- C.  $\frac{1255}{15000}$
- D.  $\frac{1369}{15000}$
- E. None of these

24. Find the number of solutions of following equation:-

$$\left( \left| |x| - 6 \right| = 2^x \right)$$

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4

25. A TV seller sells his TV at 45% profit. Due to the economic recession he sells at 40% profit but his sells increase by 10%. What is the ratio of new profit to old profit?

- a) 9:8
- b) 11:10
- c) 45:44
- d) 44:45
- e) 6:5

26. If  $n$  is an integer such that  $n > 9$ , which of the following could be the remainder when

$$2 + 2^2 + 2^3 + 2^4 + \dots + 2^n$$

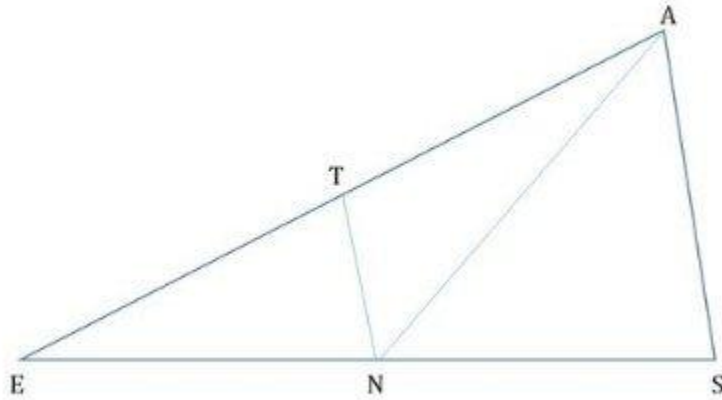
$(2 + 2^2 + 2^3 + 2^4 + \dots + 2^n)$  is divided by 3 ?

- I. 0
- II. 1
- III. 2

- (A) Only I
- (B) Only II

- (C) Only III
- (D) Only I and III
- (E) I, II and III

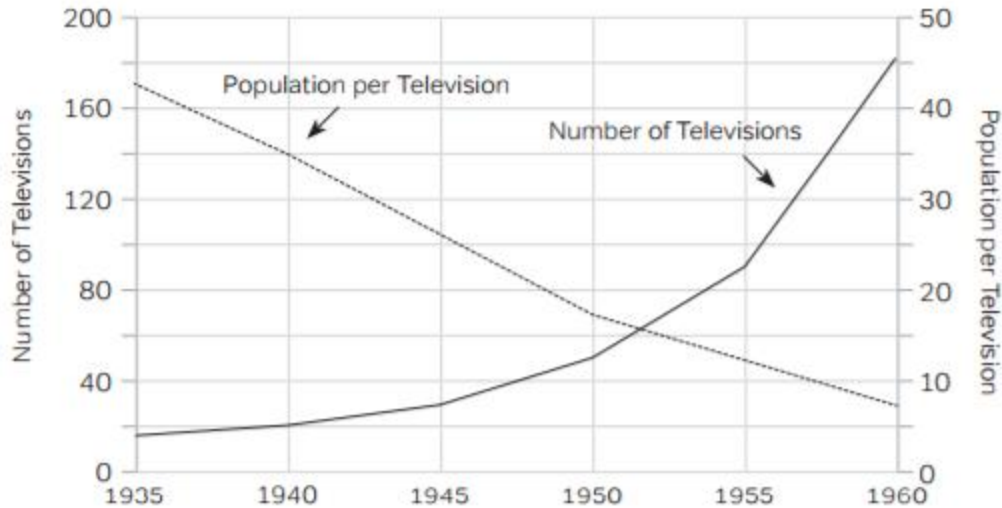
27.



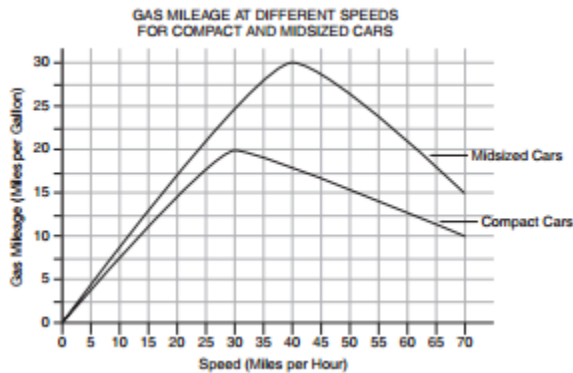
In the given figure, if  $AS = 10$  cm,  $SN = 5$  cm and  $TN = 8$  cm, which of the following could be the positive difference between the maximum and minimum value of  $AT$ , if all the sides shown in the figure are positive integers?

- A) 16
  - B) 18
  - C) 20
  - D) 21
  - E) 23
28. There are two containers A and B filled with mentha oil with different prices and with volumes 140 and 60 liters respectively. Equal quantities are drawn from both A and B in such a manner that the oil drawn from A is poured in into B and oil drawn from B is poured into A. After doing so, the price per liter becomes equal in both containers. What is the (equal) quantity that was drawn?
- A. 21 liters
  - B. 27 liters
  - C. 35 liters
  - D. 42 liters
  - E. 45 liters

Televisions in Town X, and Population per Television



29. In 1955, the ratio of the number of televisions to the number of people was approximately
- A. 1 to 13
  - B. 1 to 23
  - C. 1 to 26
  - D. 1 to 50
  - E. 1 to 90



30. The figure above shows gas mileage at different speeds for all compact and midsize cars. John drove a compact car at 30 miles per hour for 1 hour and at 50 miles per hour for 30 minutes. Jill drove a midsize car at 40 miles per hour for 1 hour and at 60 miles per hour for 30 minutes. The total amount of fuel consumed by Jill's car is approximately what percent of the total amount of fuel consumed by John's car?
- A. 80%
  - B. 90%
  - C. 110%
  - D. 140%
  - E. 145%