

GMAT TEST**SECTION 1 - PROBLEM SOLVING**

Time - 25 minutes, 15 Questions

Numbers: All numbers used are real numbers**Question 1**

Of a certain high school graduating class, 75 percent of the students continued their formal education, and 80 percent of those who continued their formal education went to four-year colleges. If 300 students in the class went to four-year colleges, how many students were in the graduating class?

- A) 500
- B) 375
- C) 240
- D) 225
- E) 180

Question 2

Which of the following equations has a root in common with $x^2 - 6x + 5 = 0$?

- (A) $x^2 + 1 = 0$
- (B) $x^2 - x - 2 = 0$
- (C) $x^2 - 10x - 5 = 0$
- (D) $2x^2 - 2 = 0$
- (E) $x^2 - 2x - 3 = 0$

Question 3

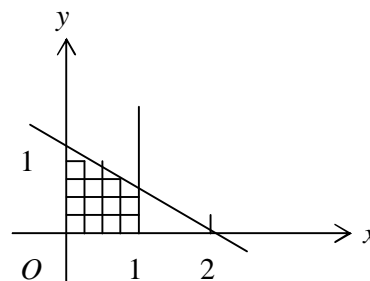
A dealer originally bought 100 identical batteries at a total cost of q dollars. If each battery was sold at 50 percent above the original cost per battery, then, in terms of q , for how many dollars was each battery sold?

- A) $\frac{3q}{200}$
- B) $\frac{3q}{2}$
- C) $150q$
- D) $\frac{q}{100} + 50$
- E) $\frac{150}{q}$

Question 4

Ellen: I just heard that Julie flunked out of college. Nancy: That can't be true; she got straight A's in high school. From the conversation above, it can be inferred that

- A. Nancy thinks Ellen is lying
- B. Nancy assumes that no one who got straight A's in high school is likely to flunk out of college
- C. Ellen thinks Julie has flunked out of college
- D. Nancy thinks Julie is still in college
- E. Ellen knows that Julie flunked out of college

Question 5

In the rectangular coordinate system above, the shaded region is bounded by straight lines. Which of the following is NOT an equation of one of the boundary lines?

- A) $x = 0$
- B) $y = 0$
- C) $x = 1$
- D) $x - y = 0$
- E) $x + 2y = 2$

Question 6

In a certain class consisting of 36 students, some boys and some girls, exactly $\frac{1}{3}$ of the

boys and exactly $\frac{1}{4}$ of the girls walk to school. What is the greatest possible number of students in this class who walk to school?

- (A) 9
- (B) 10
- (C) 11
- (D) 12
- (E) 13

Question 7

The cost C of manufacturing a certain product can be estimated by the formula $C = 0.03rst^2$, where r and s are the amounts, in pounds, of the two major ingredients and t is the production time, in hours. If r is increased by 50 percent, s is increased by 20 percent, and t is decreased by 30 percent, by approximately what percent will the estimated cost of manufacturing the product change?

- A) 40% increase
- B) 12% increase
- C) 4% increase
- D) 12% decrease
- E) 24% decrease

Question 8

Jack is now 14 years older than Bill. If in 10 years Jack will be twice as old as Bill, how old will Jack be in 5 years?

- A) 9
- B) 19
- C) 21
- D) 23
- E) 33

Question 9

In a mayoral election, Candidate X received $\frac{1}{3}$ more votes than Candidate Y , and Candidate Y received $\frac{1}{4}$ fewer votes than Candidate Z . If Candidate Z received 24,000 votes, how many votes did Candidate X receive?

- A) 18,000
- B) 22,000

- C) 24,000
- D) 26,000
- E) 32,000

Question 10

A homeowner wants to buy coal in bulk. If coal costs \$1 a pound, and a buyer gets a 2% discount on all the coal after the first 1,000 pounds of coal, how much will it cost to buy 5,000 pounds of coal?

- A) \$49.20
- B) \$50.00
- C) \$3,920.00
- D) \$4,920.00
- E) \$5,000.00

Question 11

If a rectangular photograph that is 10 inches wide by 15 inches long is to be enlarged so that the width will be 22 inches and the ratio of width to length will be unchanged, then the length, in inches, of the enlarged photograph will be

- A) 33
- B) 32
- C) 30
- D) 27
- E) 25

Question 12

A salesman's income was divided between commission and regular salary. His salary, therefore, varied from week to week. His weekly salaries over a 5 week period were: \$406.20, \$413.50, \$420.00, \$425.00 and \$395.30. What was his average weekly salary over the 5 week period?

- A) \$400.40
- B) \$408.90
- C) \$410.40
- D) \$412.00
- E) \$2060.00

Question 13

$$(\sqrt{3} + 2)(\sqrt{3} - 2) =$$

- A) $\sqrt{3} - 4$
- B) $\sqrt{6} - 4$
- C) -1
- D) 1
- E) 2

Question 14

If the circumference of a circular region is c , which of the following represents the area of that circular region?

- A) $\frac{c^2}{2}$ B) $\frac{c^2}{4}$
C) $\frac{c^2}{2\pi}$ D) $\frac{c^2}{4\pi}$
E) $\frac{c^2}{4\pi^2}$

Question 15

If 60 percent of a rectangular floor is covered by a rectangular rug that is 9 feet by 12 feet, what is the area, in square feet, of the floor?

- A) 65
B) 108
C) 180
D) 270
E) 300

Problem solving

1. A

2. D

3. A

4. B

5. D

6. C

7. D

8. D

9. C

10. D

11. A

12. D

13. C

14. D

15. C