

Question 1

Dave needs to paint the exterior of his house. He measures the outside walls and they are 73 *m* total in length and an average of 3.5 *m* high. He intends to apply one coat of primer and two coats of top coat. Primer comes in 4 litre pails costing \$119, undercoat comes in 4 litre pails costing \$139 and top coat comes in 10 litre pails costing \$159. Primer covers 12 m^2 /litre and undercoat and top coat cover 16 m^2 /litre. How much will the paint cost to paint his house?

- A. \$1,109.29 B. \$1,141.23 C. \$1,210.00 D. \$1,350.00 E. \$1,586.91

Question 2

What is the area of the shape formed by joining the points (-2, 4), (3, -2), (2, 3), (-3, 0)?

- A. 13.5 B. 18 C. 22.5 D. 24 E. 36

Question 3

An election is held for a new board of trustee member. 69 votes were received in total for four candidates. Each person voting is only allowed to vote for one person. The candidate with the highest number of votes wins.

The smallest number of votes the winner can receive is

- A. 17 B. 18 C. 33 D. 34 E. 35

Question 4

In a traffic study, a survey of 50 moving cars is done and it is found that 20% contain more than one person. Of the cars containing only one person, 60% are driven by women. Of the cars containing just one person, how many were driven by men?

- A. 4 B. 6 C. 10 D. 16 E. 24

Question 5

Ross Taylor has scores of 35, 76, 15 and 123 in the first four innings of a test series against England. If his average after five innings is 68, what did he score in his fifth innings?

- A. 18 B. 62 C. 63 D. 68 E. 91

Question 6

The area of a rectangular shaped lawn is 36 m^2 . It has a length of 18 m . Its perimeter in metres is

- A. 18 B. 20 C. 24 D. 36 E. 40

Question 7

If E means exponent such that $5E2$ means 5 to the power of 2 or 5 squared and equals 25. Which of the following is the same as $2E12 \times 2E12 \times 2E12 \times 2E12$?

- A. $2E48$ B. $2E20736$ C. $8E48$ D. $16E12$ E. $16E48$

Question 8

In how many ways can the letters of the word 'LEADER' be arranged?

- A. 72 B. 144 C. 360 D. 720 E. None of these

Question 9

What is the probability of getting a sum of 9 from two throws of a six sided dice?

- A. $1/4$ B. $1/6$ C. $1/8$ D. $1/9$ E. $1/12$

Question 10

An emergency shelter had sufficient food for 150 people for 30 days. At the start of the eleventh day, 50 people left the shelter. How many days will the remaining food last assuming no more people leave?

- A. 10 B. 20 C. 30 D. 40 E. 50

Question 11

Ravi invests \$12,000.00 in a fund offering 7% interest per annum. After three years he empties the account.

How much does he withdraw assuming he has not withdrawn any funds prior?

- A. \$12,000.00 B. \$13,680.00 C. \$13,738.80 D. \$14,520.00 E. \$14,700.52

Question 12

Six bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10, and 12 seconds respectively. In 31 minutes, how many times do they toll together?

- A. 15 B. 16 C. 30 D. 31 E. 150

Question 13

Sam purchased 24 dozen large novelty easter eggs for \$360 per dozen. He sold them for \$33 each individually. What was his percentage profit?

- A. 9.09 B. 9.17 C. 10 D. 11 E. 12.5

Question 14

The Metro crew can pave 1.5 kilometres of road in 16 days. The City crew can pave this amount of road in 12 days. A flood washes away 1.5 km of road paving which needs to be replaced in 6 days. The Urban crew is brought in to help. On their own, how many days would it take for the Urban crew to lay 1.5 km of paving?

- A. 6 B. 10 C. 18 D. 24 E. 48

Question 15

Starting at 50, what is the sum of the next 5 prime numbers?

- A. 290 B. 291 C. 297 D. 311 E. 325

Question 16

If the number 54347A202 is divisible by 3, what is the smallest possible value of A?

- A. 0 B. 1 C. 2 D. 3 E. 6

Question 17

If one third of one fourth of a number is fifteen, then one fifth of that number is?

- A. 3 B. 15 C. 16 D. 21 E. 36

Question 18

Ten square metres is equal to

- A. 10,000 cm^2 B. 100,000 cm^2 C. 1,000,000 cm^2 D. 100,000 mm^2
E. 1,000,000 mm^2

Question 19

When $\frac{4}{7}$ is expressed in decimal form, the digit which is in the 21st decimal place is

- A. 1 B. 2 C. 4 D. 5 E. 7

Question 20

In a given period of time an athlete runs 300 m, a plane flies 12 km, and an ant walks 5 cm. What is the total distance travelled by all three, in kilometres?

- A. 12.300005 B. 12.30005 C. 12.3005 D. 12.305 E. 12.350

Question 21

A water lily on a pond doubles in size each day. Twenty days after the first leaf appears, the pond surface is completely covered.

How long did it take from the start to cover 25% of the pond?

- A. 4 days B. 5 days C. 16 days D. 18 days E. 19 days

Question 22

A quadrilateral has two pairs of parallel sides.

Which of the following quadrilaterals always obey this rule?

a Square b Parallelogram c Trapezium d Rhombus e Kite f Hexagon

- A. a,b,d B. a,b,c,d C. a,b,d,f D. a,d,f E. All of them

Question 23

What is the next value in this sequence?

2:31, 3:13, 3:56, 4:40, ____

- A. 4:04 B. 4:84 C. 4:85 D. 5:15 E. 5:25

Question 24

Find the odd one out.

8, 27, 64, 100, 125, 216, 343

- A. 27 B. 100 C. 125 D. 216 E. 343

Question 25

Calculate $3 \times 4 \times 5 - 6 + 7 \times 8 - 9 \times 0$.

- A. 0 B. 101 C. 110 D. 479 E. 488

Question 26

What is the percentage increase in the area of a rectangle if each of its sides is increased by 20%?

- A. 20% B. 40% C. 44% D. 80% E. 107%

Question 27

Esther takes a shortcut on the way to work by walking diagonally across a square playground. Approximately what was the percentage distance saved by not walking around the edge of the playground?

- A. 30 B. 41 C. 43 D. 50 E. 60

Question 28

A square piece of paper is folded in half vertically. The resulting rectangle has a perimeter of 12 *cm*, what was the area of the original piece of paper?

- A. 8 *cm*² B. 9 *cm*² C. 16 *cm*² D. 22 *cm*² E. 24 *cm*²

Question 29

The perimeter of a regular hexagon is 60 *cm*.

What is the diameter of a circle that could be drawn passing through each of the vertices of the hexagon?

- A. 10 *cm* B. 20 *cm* C. 40 *cm* D. 30 *cm* E. 60 *cm*

Question 30

Which unit could not be used to measure the size of a room?

- A. *cm* B. *ft* C. *km* D. *lm* E. *mm*