Global math Olympiad

CLASS : 8 (SYLLABUS & SAMPLE QUESTIONS)

Rational Number, Powers, Square and Square Root, Cube and Cube Root, Algebraic Expression, Factorization, Linear Equation, Variation, Time and Work, Percentage, Profit and Loss, Compound Interest and Simple Interest, Mensuration, Statistics, Probability, Mathematical Reasoning and Logical Ability

Applied Mathematics, Mathematical Reasoning.

1. If the next day after 3rd monday in a month is 16th, what will be the date on the day before 5th monday ?

(A) 25th (B) 26th
(C) 27th (D) 28th
(E) None of these

2. Ravi ranked 8th from the top and 37th from the bottom in a class. How many students are there in the class ?

(A) 42 (B) 44
(C) 46 (D) 47
(E) None of these

3. The value of

$$\frac{\left(p+\frac{1}{q}\right)^m\left(p-\frac{1}{q}\right)^m}{\left(q+\frac{1}{p}\right)^m\left(q-\frac{1}{p}\right)^m}$$ **is**

(A) $\frac{p}{q}$ (B) $\left(\frac{p}{q}\right)^m$
(C) $\left(\frac{p}{q}\right)^{2m}$ (D) $\left(\frac{q}{p}\right)^{2m}$
(E) None of these

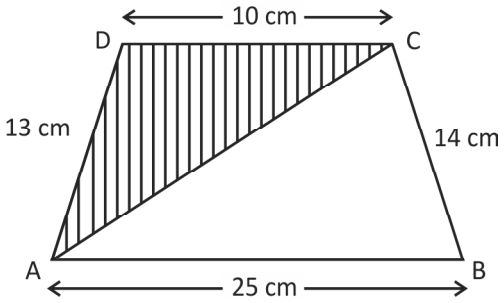
4. $x^2+\frac{1}{x^2}=83$, **find the value of** $x^3-\frac{1}{x^3}$ **is**

(A) 756 (B) 764
(C) 784 (D) 796
(E) None of these

5. Thomas invested certain sum of money in a project such that the S. I. on the sum at the rate of 4 % p.a. for 4 yrs is Rs. 1600. Find the C.I. at the rate of 4% for the same period.

(A) Rs. 1698.59
(B) Rs. 1700
(C) Rs. 1890.90
(D) Rs. 1870.79
(E) None of these

6. The area of shaded region of the figure



(A) 52 cm^2 (B) 104 cm^2
(C) 26 cm^2 (D) 78 cm^2
(E) None of these

7. A metallic sphere of radius 3 cm is melted and recast into a spherical ball of radius 0.6 cm. The number of ball that can be made out of it is:

(A) 90 (B) 95
(C) 100 (D) 125
(E) None of these

8. The mean of 40 data was 160. On rechecking it was found that 165 was wrongly copied as 125. The correct mean is:

(A) 155 (B) 158
(C) 160 (D) 161
(E) None of these

9. From the pack of 52 cards 1 card is taken out. The probability that it is king or spade.

(A) $\frac{1}{4}$ (B) $\frac{7}{26}$
(C) $\frac{4}{13}$ (D) $\frac{2}{13}$
(E) None of these

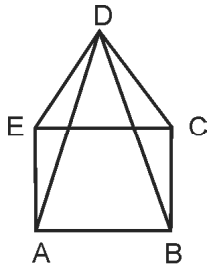
10. A Shopkeepar offers 10% discount on a ball and still makes a profit of 20%. The C.P. of ball if the M.P. is Rs. 350 is

(A) Rs. 262.5 (B) Rs. 282
(C) Rs. 270.50 (D) Rs. 292.50
(E) None of these

11. If $x + y = 10$ and $x^2 + y^2 = 58$ then the value of $x^3 + y^3$ is

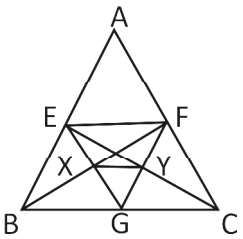
(A) 625 (B) 628
(C) 790 (D) 820
(E) None of these

12. If ABCE is a square and CDE is equilateral triangle, then angle $\angle ADB$ will be:



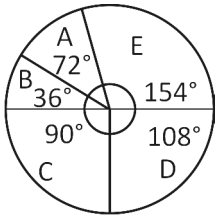
(A) 15° (B) 20°
(C) 25° (D) 30°
(E) None of these

13. In the given figure BC=39 cm, find XY if EF||BC & XY||EF



(A) 9.75cm (B) 9.80cm
(C) 9.65cm (D) 9.85cm
(E) None of these

14. The expenditure is shown on the pie chart of the different items. The percentage of expenditure on A is



(A) 15% (B) 20%
(C) 10% (D) 30%
(E) None of these

15. Insert the symbols '+' and '-' such that 5 9 1 7 2 3 =9

(A) $(-,+,-,-,-)$
(B) $(-,+,+,+,+)$
(C) $(+,+,-,-+)$
(D) Both (B) and (C) are correct
(E) None of these

ANSWERS															
1.	(D)	2.	(B)	3.	(C)	4.	(A)	5.	(A)	6.	(A)	7.	(D)	8.	(D)
9.	(C)	10.	(A)	11.	(C)	12.	(A)	13.	(A)	14.	(B)	15.	(D)		