

11th iOM'18

International Olympiad of Mathematics



Presented by:
SILVER ZONE
 FOUNDATION
 NEW DELHI, INDIA

Organized by:
Mathematics Olympiad Foundation
 New Delhi, India

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CLASS : 8 (SYLLABUS & SAMPLE QUESTIONS)

Number Systems, Powers and exponents, Square and Square Root, Cube and Cube Root, Algebraic Expressions, Factorization, Linear Equation, Direct and inverse proportions, Time and Work, Percentage, Profit and Loss, Compound Interest and Simple Interest, Geometry, Mensuration, Data Handling, Applied Mathematics, Reasoning & Aptitude.

The Actual Question Paper Contains 50 Questions. The Duration of the Test Paper is 60 Minutes.

- Jack's monthly salary is ₹ 78,000. He spends 20% on fooding and 10% on house rent. From the remaining, he spends 30% on his only son's education and donates 10% of the rest to charity. His monthly savings is:

(A) ₹ 35498 (B) ₹ 34498
 (C) ₹ 34389 (D) ₹ 34398
 (E) None of these
- 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
- 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
- A thread goes 100 around a wheel of radius 14 cm. If the radius of the wheel is increased to 20 cm, then find the number of rounds the same thread will make around the wheel.

(A) 70
 (B) 96
 (C) 94
 (D) 92
 (E) None of these
- A metallic sphere of radius 3 cm is melted and recast into some spherical balls of radius 0.6 cm. The number of balls that can be made out of it is:

(A) 90 (B) 95
 (C) 100 (D) 125
 (E) None of these
- Factorise: $x^2 + \frac{1}{x^2} + 2 - 2x - \frac{2}{x}$

(A) $x + \frac{1}{x}$ (B) $x + \frac{1}{x} - 2$
 (C) $\left(x + \frac{1}{x}\right)^2$ (D) $\left(x + \frac{1}{x}\right)\left(x + \frac{1}{x} - 2\right)$
 (E) None of these

