iOM

International Olympiad of

Mathematics





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CLASS: 8 SAMPLE QUESTIONS

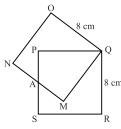
The Actual Question Paper Contains 35 Questions. The Duration of the Test Paper is 40 Minutes.

- A sum amounts to ₹7458 in 4 years and ₹8362 in 6 years at a certain rate of simple interest. Find the sum.
 - (A) ₹5630
- ₹5050 (B)
- (C) ₹5650
- (D) ₹5030
- If K = $7 4\sqrt{3}$, then find the value of $(\sqrt{K} + \sqrt{3})^{\frac{3}{2}}$.
- (B) $2\sqrt{2}$ (C) $\sqrt{3}$

- If p, q, r and s are four different positive integers selected from 1 to 50, then find the highest possible value of $\frac{(p+q)+(r+s)}{s}$ (p+q)+(r-s)
 - (A) 91
- (B) 101
- (C) 194
- (D) 107
- What must be added to the following algebraic expression to make it a perfect square?

$$\frac{5x^2}{64} - \frac{3\sqrt{40}x}{20} + \frac{22}{25}$$

- (B) 1
- (C) 2
- 51
- If the eight digit number 5671a118 is exactly divisible by 222, then find the least possible value of a.
 - (A) 0
- (B) 2
- (C) 3
- In the figure given below, PQRS and QMNO are two identical squares with side length of 8 cm, and A is the mid-point of PS and MN, find the area of the hexagon QRSANOQ.



- (A) 80 cm²
- 96 cm² (B)
- (C) 112 cm²
- (D) 78 cm²

Examine the following three figures given below in which the number follows a specific pattern:

28	
37	46

48	
53	58



The missing number in the third figure given above

- (A) 65
- (B) 75
- (C) 30
- (D) 68
- Read the statements given below:

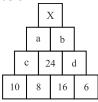
Statement I: $(123456 \times 123460) > (123458)^2$

Statement II: $(64)^{13} > (127)^{11}$

Statement III: $4^{32} > 64^{11}$

Based on the above statements choose the correct option:

- (A) Only statement I is true
- (B) Only statement II is true
- (C) All the statements I, II and III are true
- (D) All the statements I, II and III are false
- If p: q=4:5, q: r=6:7 and r: s=3:4, then on dividing ₹ 7733 among p, q, r and s, the amount of q will be:
 - (A) ₹1710
- (B) ₹1468
- (C) ₹1620
- (D) ₹1805
- (E) None of these
- The numbers are arranged in the diagram as shown below:



If the number in any box is equal to the sum of the numbers in the boxes immediately below it, like X = a + b, a = c + 24 and so on. Find the value of 'X'.

- (A) 100 (B) 64
- (C) 88

ANSWERS											
	1. (C)	2. (B)	3. (B)	4. (C)	5. (D)	6. (B)	7. (B)	8. (B)	9. (A)	10. (C)	