

# 9<sup>th</sup> iOM'16

## International Olympiad of Mathematics



Presented by:  
**SILVER ZONE FOUNDATION**  
 Organized by :  
**Mathematics Olympiad Foundation**  
 New Delhi, India  
 For supremacy in Mathematics  
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### CLASS : 4 (SYLLABUS & SAMPLE QUESTIONS)

Number System, Operation on Numbers, Roman Numerals, Factors and multiples, Fraction, Decimals, Money, Unitary Method, Geometrical Concepts, Area and Perimeter of Geometrical Figures, Graphical Representation of Data, Data handling, Applied Mathematics, Mental Aptitude

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

- A is less than B, B is less than C, C is less than D, D is greater than E, E is equal to A. Then choose the correct option**

(A) C is smallest among A, B, C, D and E  
 (B) C is less than A  
 (C) D is greater among A, B C, D and E  
 (D) All of these  
 (E) None of these
- The following bar graph shows the height of 6 girls in a class. In a sporting event only those girls can participate who have height of 138 cm. Find how much height the shortest girl given in the graph needs to increase to participate in the competition?**

Name of the student	Height (in cm)
Bhumi	140
Khushi	120
Juhi	160
Renu	140
Ruchi	150
Mahi	150

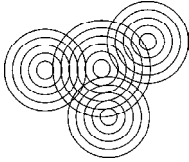
(A) 20 cm                      (B) 18 cm  
 (C) 16 cm                      (D) 14 cm  
 (E) None of these
- If  $3x$  means  $1 \times 2 \times 3$ , thus  $3x = 6$  and if  $4x$  means  $1 \times 2 \times 3 \times 4$ , thus  $4x = 24$ , then  $6x$  is equal to?**

(A) 120  
 (B) 384  
 (C) 720  
 (D) 1008  
 (E) 5040
- Y is 5 times of X. When Y is divided by 45, the quotient is 278 and the remainder is 35. Find the value of  $X + Y$ .**

(A) 15054  
 (B) 12054  
 (C) 16054  
 (D) 18054  
 (E) None of these
- The desks in a classroom are arranged in straight rows. John is in the third row from the front and the fourth row from the back. He is also third from the left end of a row and fifth from the right. How many desks are in the classroom?**

(A) 24  
 (B) 30  
 (C) 35  
 (D) 42  
 (E) 56

6. How many circles are there in the following figure?



- (A) 20  
 (B) 21  
 (C) 22  
 (D) 23  
 (E) None of these

7. Write the Roman Numeral for 1176.

- (A) MXXVI  
 (B) MLXXVIC  
 (C) MCILXX  
 (D) MCLXXVI  
 (E) None of these

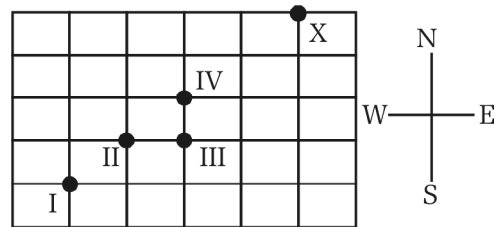
8. ( $2^3 = 2 \times 2 \times 2$  and  $2^5 = 2 \times 2 \times 2 \times 2 \times 2$ ) If  $2^x + 3^y = 41$ , where  $x$  and  $y$  are natural numbers, then the value of  $x + y$  is

- (A) 9 (B) 8  
 (C) 7 (D) 6  
 (E) None of these

9. Price of 15 maths book is \$825 and the price of 19 science book is \$855. Jack buys 3 maths book and 2 science book, how much he has to pay?

- (A) \$ 250  
 (B) \$ 260  
 (C) \$ 265  
 (D) \$ 255  
 (E) None of these

10. In the grid below, I took 2 steps east, 2 steps north, one step east and one step north and reached X. Where did I start?



- (A) I  
 (B) II  
 (C) III  
 (D) IV  
 (E) None of these



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