



MATHS

BOOKS - HT Olympiad Previous Year Paper

IMO MODEL TEST PAPER 1

Mathematical Reasoning

1. There are _____ right angles in one complete revolution.

A. 2

B. 3

C. 4

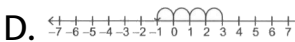
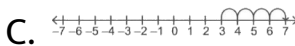
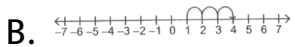
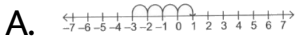
D. 6

Answer: C

 Watch Video Solution

2. Which of the following number lines correctly shows:

$(-3) - (-4)$?



Answer: A

 Watch Video Solution



Watch Video Solution

3. A number is divisible by 9, if _____

A. The sum of the digits is divisible by 4

B. The sum of the digits is divisible by 9

C. The last digit is divisible by 9

D. Both B and C

Answer: B



Watch Video Solution

4. Subtract 21139 from 92018 and round off the resultant to the nearest tens?

A. 70870

B. 70879

C. 70800

D. 70880

Answer: D



Watch Video Solution

5. Numeral form of sixteen crore four lakh fifty thousand three hundred ten is

A. 16450310

B. 160450310

C. 164005310

D. 16004510

Answer: B

 [Watch Video Solution](#)

6. Find the HCF OF 136 , 170 and 255.

A. 13

B. 15

C. 17

D. 1

Answer: C

 [Watch Video Solution](#)

7. When two lines meet at a point forming right angles they are said to be _____ to each other.

- A. Parallel
- B. Perpendicular
- C. Non-intersecting
- D. None of these

Answer: B



Watch Video Solution

8. Which of the following set of angles can form a triangle ?

A. 70° , 90° , 25°

B. 65° , 85° , 40°

C. 65° , 85° , 30°

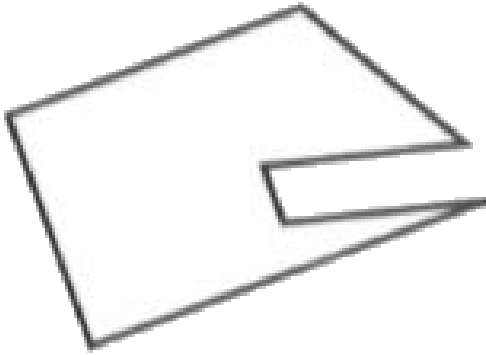
D. 45° , 45° , 80°

Answer: C



Watch Video Solution

9. How many pairs of parallel lines are there in the given figure ?



A. 2

B. 4

C. 3

D. 5

Answer: C



Watch Video Solution

10. The expression $6(b + c)$ is equivalent to $6b + 6c$, by using the _____ property.

- A. Commutative
- B. Closure
- C. Distributive
- D. Identity

Answer: C



Watch Video Solution

11. Find the value of the given expression.

$$(-127) + (-30) + 5 + (-452) + (-725) + 60 - (-15)$$

A. – 1254

B. – 2140

C. – 1721

D. – 2921

Answer: A



Watch Video Solution

12. What smallest digit should be given to * so that 2315016^* is divisible by 8?

A. 1

B. 0

C. 3

D. 2

Answer: B



Watch Video Solution

13. The algebraic expression for the statement 17 more than 3 times the product of two numbers l and m is:

A. $3lm + 17$

B. $3lm - 17$

C. $\frac{3lm}{17}$

D. $17 \times 3(l + m)$

Answer: A





Watch Video Solution

14. Which of the following numbers when rounded off to the nearest hundred gives 15900?

A. 14955

B. 14999

C. 15086

D. 15899

Answer: D



Watch Video Solution

15. 8 tenths less than _____ is equal to the sum of 5.56 and 4.84.

A. 11.2

B. 9.21

C. 5.36

D. 12.56

Answer: A



Watch Video Solution

16. A _____ of a circle is a region in the interior of the circle enclosed by an arc and a chord.

A. sector

B. diameter

C. centre

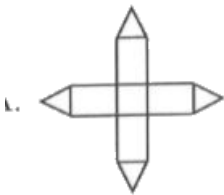
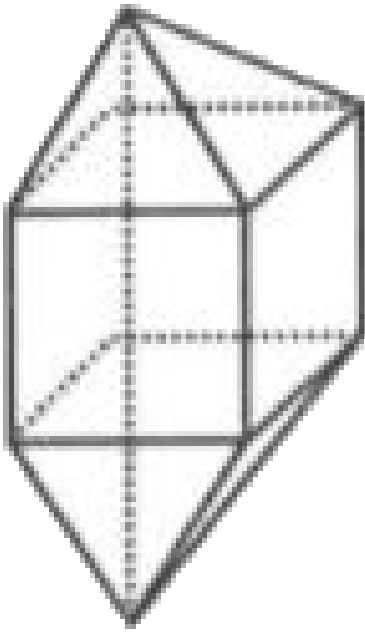
D. segment

Answer: D

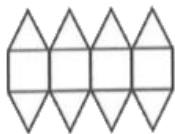


Watch Video Solution

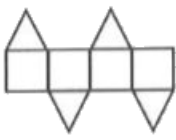
17. Which of the following nets can form the given solid ?



A.



B.



C.



D.

Answer: B

 [Watch Video Solution](#)

18. Find the missing number :

$$16 + 1\left(\frac{1}{6}\right) + 33 + 1\left(\frac{1}{6}\right) = 15\left(\frac{1}{2}\right) + ?$$

A. $26\left(\frac{1}{2}\right)$

B. 51

C. $57\left(\frac{1}{2}\right)$

D. $66\left(\frac{1}{2}\right)$

Answer: A



Watch Video Solution

19. In a quiz, a team scored the following scores in 7 rounds:

$-30, 20, 5, -10, 0, -20, 10$

The total score of the team is _____

A. -25

B. 35

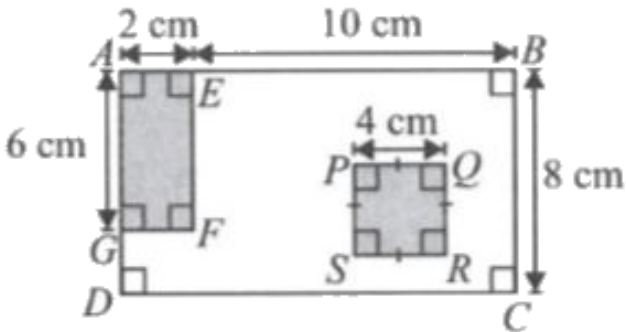
C. 10

D. 25

Answer: A

 Watch Video Solution

20. Find the area of the unshaded part in the given figure.



A. 45cm^2

B. 52cm^2

C. 68cm^2

D. 78cm^2

Answer: C



Watch Video Solution

Everyday Mathematics

1. A shopkeeper has 165 L of oil in a drum. He sold 18 L 500 mL, 23 L 520 mL, 13 L 750 mL and 29 L oil to customers. How much oil is left in the drum ?

A. 77 L 50 mL

B. 80 L 230 mL

C. 68 L 500 mL

D. 97 L 520 mL

Answer: B



Watch Video Solution

2. A man had some pencils. He packed them into 28 packets of 8 pencils each. He found that he had 5 pencils left. How many pencils had he at first ?

A. 41

B. 140

C. 229

D. 1120

Answer: C



Watch Video Solution

3. The population of a country was 76867345. It decreased by 34567789 in one year when the nation was hit by a terrible famine. What was the population of the country after the year of famine ?

A. 46433240

B. 52311932

C. 42299556

D. 39462430

Answer: C



Watch Video Solution

4. Four families went on a picnic. Each family carried a cake for picnic $\frac{3}{4}$ of each cake was eaten. How much cake was eaten in all ?

A. $\frac{3}{8}$

B. 3

C. $\frac{9}{12}$

D. 1

Answer: B



Watch Video Solution

5. Abhay sold 50 wrist watches and 30 pens. If cost of each wrist watch is Rs 235.85 and each pen is Rs 7.72, then what is the total cost of wrist watches and pens sold ?

A. Rs 13289.25

B. Rs 16480.60

C. Rs 15843.50

D. Rs 12024.10

Answer: D



Watch Video Solution

6. Sneha scored 5 marks more than Prachi. If Prachi scored x marks, then the marks scored by Sneha is _____

A. $x - 15$

B. $5 - x$

C. $5 + 10x$

D. $x + 5$

Answer: D



Watch Video Solution

7. Aman filled his car's petrol tank with 45 litres of petrol on Monday. The next day, he filled the tank with 30 litres of petrol. If the petrol costs Rs 49.82 per litre, then how much did he spend in all on petrol ?

A. Rs 3736.50

B. Rs 2043.50

C. Rs 2860.50

D. Rs 1899.50

Answer: A

 [Watch Video Solution](#)

8. During a morning walk, Akriti, Priya and Rinki step off together. Their steps measure 50 cm, 65 cm and 75 cm respectively. What is the minimum distance each should walk so that all can cover the same distance in complete steps ?

A. 1595 cm

B. 1955 cm

C. 1185 cm

D. 1950 cm

Answer: D



Watch Video Solution

9. Rishab had a note of Rs 1000. He bought a geometry box for Rs 64.75, a packet of pencil colours for Rs 52.89 and 2 books for Rs 300 each. How much amount was left with him ?

A. Rs 285.86

B. Rs 582.36

C. Rs 588.56

D. Rs 282.36

Answer: D

 [Watch Video Solution](#)

10. A catering contractor delivered a bag of rice in each of his five kitchens. At the end of the day he collected the balance of rice $\frac{1}{3}$ kg, $\frac{2}{5}$ kg, $\frac{3}{7}$ kg, $\frac{1}{2}$ kg and $\frac{2}{3}$ kg respectively. How much was the total quantity of rice he collected ?

A. $3\left(\frac{21}{70}\right)$ kg

B. $2\left(\frac{23}{70}\right)$ kg

C. $3\left(\frac{24}{50}\right)$ kg

D. $2\left(\frac{22}{50}\right)$ kg

Answer: B



Watch Video Solution

Achievers Section

1. Match the Roman numerals given in Column-I with their correct Hindu-Arabic numerals given in Column-II.

Column-I		Column-II	
(a)	MDCLXX	(p)	1222
(b)	MMDCCII	(q)	1670
(c)	MCCLXVI	(r)	1266
(d)	MCCXXII	(s)	2702

A. a-q,b-r,c-s,d-p

B. a-q,b-s,c-r, d-p

C. a-q,b-p,c-s,d-r

D. a-q,b-s,c-p,d-r

Answer: B

 [Watch Video Solution](#)

2. Which of the following statements is incorrect ?

A. Each angle of a rectangle is a right angle.

B. A straight angle is $\frac{1}{2}$ of a revolution.

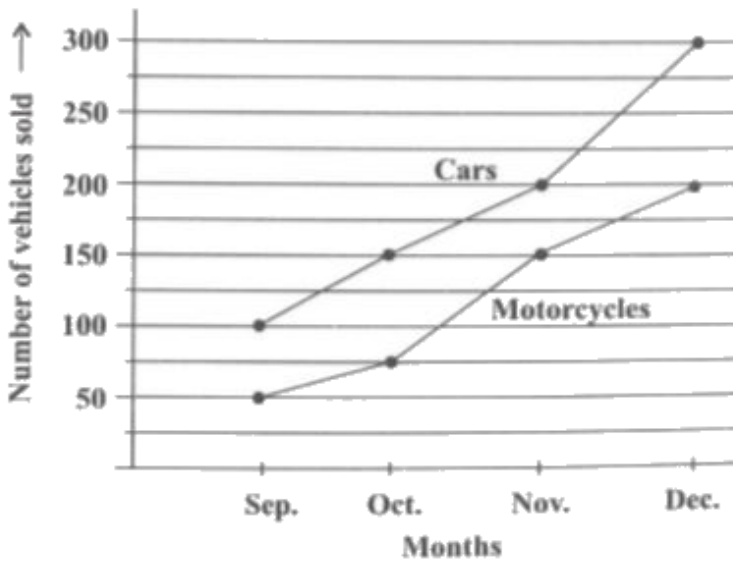
C. A reflex angle is larger than an acute angle

D. The perpendicular bisector of a line segment is a perpendicular to the line segment that divides it into two unequal parts.

Answer: D

 [Watch Video Solution](#)

3. The line graph shows the number of cars and motorcycles sold at Beena's store from September to December.

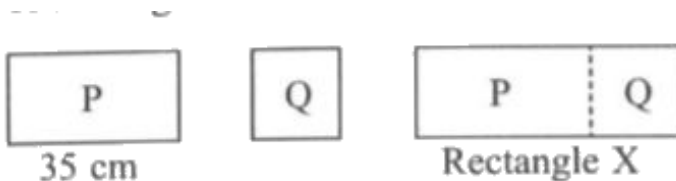


How many more cars than motorcycles did the store sell in October ?

- A. 120
- B. 100
- C. 75
- D. 85

Answer: C

4. Rectangle P and square Q are put together to make rectangle X. The length of rectangle P is twice its breadth. Each side of square Q is equal to the breadth of rectangle P.



- (a) Find the perimeter of rectangle P.
- (b) What is the difference between the perimeter of rectangle X and rectangle P ?

- A. a-105 cm, b-45 cm
- B. a-120 cm, b-45 cm
- C. a-120 cm, b-35 cm
- D. a-105 cm, b -35 cm

Answer: D



Watch Video Solution

5. Study the given statements carefully and select the correct option.

Statement-1 : A chord of a circle is a line segment joining any two points on the circle.

Statement-2 : A diameter is the shortest chord passing through the centre of the circle.

A. Statement -1 is true but Statement - 2 is false.

B. Statement -1 is false but Statement - 2 is true.

C. Both Statement -1 and Statement - 2 are true

D. Both Statement -1 and Statement -2 are false.

Answer: A



Watch Video Solution