

Mindbenz Olympiad of Mathematics (MOM)

Sample Paper

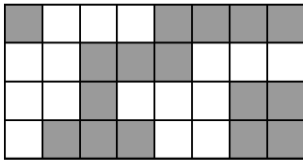
Grade - 4

Maximum Marks: 40

Time Allowed – 45 Minutes

Section: A Fundamental Check (10 Questions × 1 mark = 10 marks)

1. What fraction of the given figure is shaded?



A. $\frac{1}{2}$

B. $\frac{3}{6}$

C. $\frac{1}{3}$

D. $\frac{2}{8}$

2. Arrange the following Roman numerals in ascending order.

A	B	C	D
MCCLXV	MCDLXXX	MMDCX	DCCCXC

A. A, C, B, D

B. D, A, B, C

C. D, A, C, B

D. A, D, B, C

3. There is a number which is:

1. Greater than **160**

2. Less than **220**

3. A multiple of **18**

4. A multiple of **20**

Find the **sum of the digits** of the number.

A. 6

B. 9

C. 10

D. 12

4. Priya had the following number of stickers in her albums:

- Album 1: 3942

- Album 2: 5216

- Album 3: 3108

- Album 4: 4635

How many total stickers did she have when rounded off to the nearest thousand?

A. 17000

B. 16000

C. 18000

D. 15000

5. Which of the following options is INCORRECT?

- A. $25 \text{ L } 850 \text{ mL} + 15 \text{ L } 175 \text{ mL} = 41 \text{ L } 25 \text{ mL}$
- B. $63 \text{ L } 245 \text{ mL} + 14 \text{ L } 755 \text{ mL} = 78 \text{ L } 0 \text{ mL}$
- C. $30 \text{ L } 380 \text{ mL} + 20 \text{ L } 520 \text{ mL} = 50 \text{ L } 900 \text{ mL}$
- D. $55 \text{ L } 900 \text{ mL} + 10 \text{ L } 105 \text{ mL} = 65 \text{ L } 105 \text{ mL}$

6. Find the missing numbers:

40 ? ? ?

Pattern:

$+8 \rightarrow \div 4 \rightarrow \times 3$

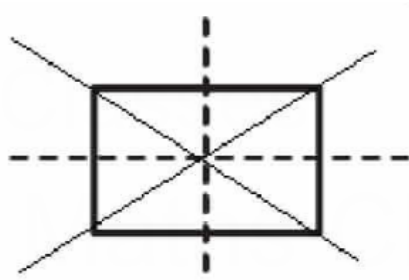
- A. 48, 12, 36
- B. 42, 10.5, 31.5
- C. 46, 11.5
- D. 44, 11

7. Consider the triangle shown and select the CORRECT option.



- A. If $XY = YZ \neq XZ$, then triangle XYZ is an isosceles triangle.
- B. If $XY = YZ = XZ$, then triangle XYZ is a scalene triangle.
- C. Both A and B
- D. Neither A nor B

8. The total number of lines of symmetry of a square is



A. 3

B. 4

C. 5

D. 2

9. If the cost of 5 iron tables is ₹ 5250, what will be the cost of 12 such tables?

A. ₹ 12,600

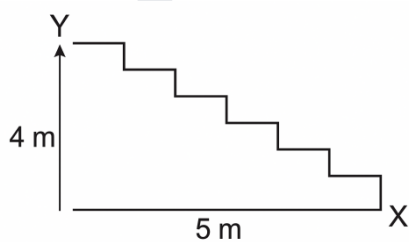
B. ₹ 12,550

C. ₹ 13,000

D. ₹ 11,250

10. A spider is moving from point X to point Y using the zigzag path on the wall as shown. Each vertical side is 4 m and each horizontal side is 5 m. There are 6 such steps.

How much distance will the spider crawl?



- A. 54 m
- B. 45 m
- C. 24 m
- D. 30 m

Section: B Application Zone (10 Questions × 1 mark = 10 marks)

11. Arjun had 10 L 500 mL of water in a tank. If he used $\frac{3}{7}$ of the total quantity, how much water is still left?

- A. 6 L 500 mL
- B. 7 L 200 mL
- C. 4 L 500 mL
- D. 5 L 300 mL

12. A bottle is filled with one-fourth juice and one-half water.

What part of the bottle is still empty?

- A. $\frac{1}{4}$
- B. $\frac{3}{4}$
- C. $\frac{1}{2}$
- D. $\frac{1}{3}$

13. How many multiples of 8 lie between 100 and 200?

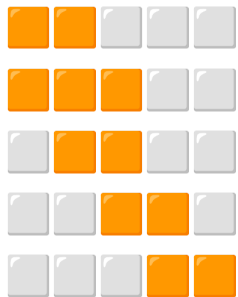
- A. 13
- B. 14

C. 12

D. 15

14. Find the perimeter of the shaded part of the given figure below.

(Each square is 1 cm × 1 cm)



A. 16 cm

B. 18 cm

C. 20 cm

D. 22 cm

15. Tina had ₹8435. She spent ₹3120 on books, ₹1565 on clothes, and ₹900 on gifts.

How much money was left with her?

A. ₹2950

B. ₹2850

C. ₹2855

D. ₹2750

16. 18,000 boxes are to be loaded into 60 trucks.

How many boxes should be loaded in 1 truck?

A. 300

B. 250

C. 350

D. 400

17. A zoo has 5487 lions and 7635 tigers.

How many animals are there in total?

A. 13,122

B. 13,042

C. 13,114

D. 13,001

18. Compare and fill in the box.

DCCCXL + CDXCV **CMXXI + CCLXIV**

A. >

B. <

C. =

D. Can't be determined

19. Select the INCORRECT statement:

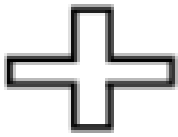
A. A square has all sides equal and four vertices.

B. A rectangle has four right corners and opposite sides equal.

C. A triangle has three sides and three corners.

D. A circle has sides and corners like other shapes.

20. How many symmetry lines can be formed.



- A. Six
- B. TWO
- C. Three
- D. Five

Section C: Maths Mastery (10 Questions × 2 marks = 20 marks)

21. Match the following and select the CORRECT option:

Column A	Column B
P. XL	(i) 40
Q. LXXX	(ii) 80
R. XC	(iii) 90
S. LX	(iv) 60

- A. P-(i), Q-(ii), R-(iii), S-(iv)
- B. P-(ii), Q-(i), R-(iv), S-(iii)
- C. P-(iii), Q-(ii), R-(i), S-(iv)
- D. P-(i), Q-(iii), R-(ii), S-(iv)

22. The table below shows prices of items in a book fair:

Item	Cost (in ₹)
Story Book	2450
Puzzle Book	1700
Drawing Book	1125
Colour Box	2050
Pen Set	1325
Sketch Book	775

Ritika wants to buy **2 Puzzle Books, 1 Colour Box, 3 Drawing Books and 1 Sketch Book.**

How much money does she need to pay?

- A. ₹ 9550
- B. ₹ 9600
- C. ₹ 9650
- D. ₹ 9580

23. Identify the number using the given clues.

- Its **hundreds digit** is **3 times** its **ones digit**.
- Its **ones digit** is the **second smallest prime number**.
- Its **tens digit** is **five more** than its ones digit.
- Its **thousands digit** is **two less** than its tens digit.

What is the number?

- A. 6251

B. 5373

C. 7152

D. 6983

24. Find the value of  + 

			Total
Row 1			20 kg
Row 2			20 kg
Row 3			16 kg

A. 16 kg

B. 20 kg

C. 15 kg

D. 18 kg

25. Which of the following statements is INCORRECT?

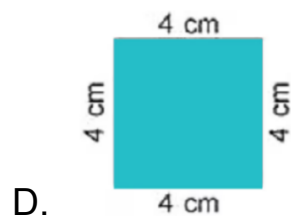
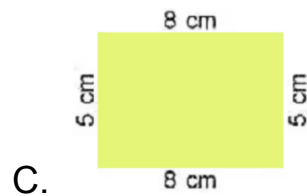
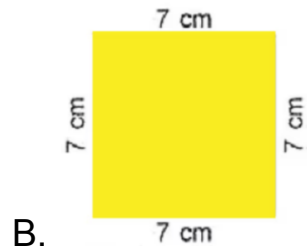
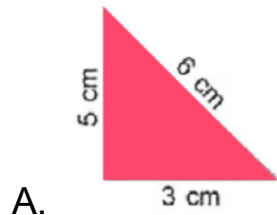
A. The sum of $3\frac{1}{5}$ and $2\frac{3}{5}$ is $5\frac{4}{5}$.

B. 9 ten thousands + 40 hundreds + 35 ones written in numerals is 94035.

C. A square has exactly 3 lines of symmetry.

D. $6537 \div 4$ leaves a remainder 1.

26. Which of the following has the largest perimeter.



27. A bookstore had **600 notebooks**. On Monday, **100 notebooks** were sold and on Tuesday, **150 notebooks** were sold.

What fraction of the total notebooks were sold on both days?

A. $\frac{2}{5}$

B. $\frac{5}{12}$

C. $\frac{1}{3}$

D. $\frac{1}{2}$

28. Read the following statements carefully and state 'T' for true and 'F' for false.

- (i) There are 46 thousands in the number 46920.
 (ii) 1 is a factor of every number.
 (iii) $90410 = 9 \text{ ten thousands} + 4 \text{ hundreds} + 1 \text{ ten}$.

	(i)	(ii)	(iii)
A.	T	F	T
B.	T	T	F
C.	F	T	F
D.	T	T	T

29. Which of the following statements is correct?

- 6 is a factor of both 42 and 90.
- 70 is a multiple of both 5 and 15.
- 17 and 19 are common factors of 57 and 76.
- 252 is a common multiple of 6 and 9.

- A. 1 & 2
 B. 2 & 3
 C. 1 & 4
 D. 3 & 4

30. How many symmetry lines can be formed.



- A. One
- B. Two
- C. Three
- D. Five

Sample Paper – Answer Key

1. a	7. a	13. c	19. d	25. c
2. b	8. b	14. D	20. b	26. b
3. b	9. a	15. b	21. a	27. b
4. a	10. a	16. a	22. b	28. d
5. d	11. a	17. a	23. d	29. c
6. a	12. a	18. a	24. b	30. a