



INDIAN SCHOOL AL WADI AL KABIR

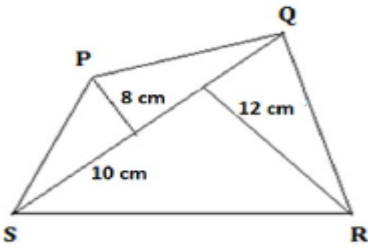
REVISION WORKSHEET

Post Mid-Term Examination (2023-24)

Class: VIII

Sub: MATHEMATICS

Section A: Multiple Choice Question (Q.1 to Q.6) of 1 mark each

| | | | | | | | |
|-----------|---|----------|---------------------|--|---------------------|----------|---------------------|
| 1. | What digit will be at the "ones" place of the cube of 12? | | | | | | |
| A | 9 | B | 4 | C | 8 | D | 0 |
| 2. | The smallest number by which 6912 should be divided so that the quotient obtained is a perfect cube is _____. | | | | | | |
| A | 4 | B | 8 | C | 3 | D | 5 |
| 3. | A box of pencils is divided among 50 children so that they will get 4 pencils each. How many would each get if the number of children is reduced by 10? | | | | | | |
| A | 9 | B | 6 | C | 7 | D | 5 |
| 4. | The area of the given quadrilateral PQRS is | | | | | | |
| | | | |  | | | |
| A | 1000 cm ² | B | 100 cm ² | C | 900 cm ² | D | 180 cm ² |
| 5. | The edge of a cube is 36 cm, how many cubes of side 9 cm can be formed from this cube? | | | | | | |
| A | 36 | B | 64 | C | 81 | D | 100 |
| 6. | If "a" varies directly with "b", the value of a = 18 when b = 24. Find the value of 'a' when b = 4. | | | | | | |
| A | 3 | B | 5 | C | 4 | D | 1 |

Section B: Source-based questions (Q.7 to Q.11) of **1** mark each

Ramesh, Nitin, and Shaan prepared for their exam by playing quiz based on the cubes of natural numbers.



| | | | | | | | |
|------------|--|----------|------|----------|------|----------|-----|
| 7. | Ramesh asked Nitin which of the following number is not a perfect cube? | | | | | | |
| A | 2744 | B | 1728 | C | 2700 | D | 729 |
| 8. | Which of the following is the cube of an odd number? | | | | | | |
| A | 27 | B | 999 | C | 1000 | D | 675 |
| 9. | Nitin asked Shaan what the value of 'x' would be if $8x^3 = 216$. | | | | | | |
| A | 7 | B | 9 | C | 3 | D | 8 |
| 10. | Which is the smallest number that must be multiplied by 5400 to make it a perfect cube? | | | | | | |
| A | 4 | B | 5 | C | 6 | D | 2 |
| 11. | Nitin asked Shaan to tell the cube root of 91125 by estimation. Choose the correct answer for Shaan. | | | | | | |
| A | 35 | B | 55 | C | 45 | D | 23 |

Section C: Long Answer Questions (Q12 to Q.15)

| | |
|------------|--|
| 12. | Find the capacity of the water tank, in litres, whose dimensions are 4 m, 3 m and 8 m. |
| 13. | Evaluate: $\sqrt[3]{27} \times \sqrt[3]{8000} \times \sqrt[3]{64}$ |
| 14. | The walls and ceiling of a room are to be plastered. The length, breadth and height of the room are 4 m, 5 m, and 300 cm respectively. Find the cost of plastering at the rate of ₹ 80 per m^2 . |

- 15.** Anupama records the distance covered and time taken during her daily morning walks for 5 consecutive days.

| | | | | | |
|------------------------|------|----|----|------|----|
| Distance (in metres) x | 1000 | a | b | 3000 | d |
| Time (in minutes) y | 16 | 30 | 24 | c | 40 |

Find the value of missing a, b, c and d.

Section D: Case study (Q.16 & Q.17) of 4marks each

- 16. Case Study 1:** Mrs. Sharma ran a hostel for college students nearby. It was famous for its cleanliness and discipline.

Based on the above information answer the following questions.



- There are 125 students in a hostel. Food provision for them is for 16 days. How long will these provisions last, if 75 more students join the group?
- 24 fans are fixed in 12 rooms. How many fans are required in 24 rooms?
- On Every festival occasion, Mrs. Sharma distributes sweets to the students. If a box of sweets is divided among 24 children, they will get 5 sweets each. How many would each get, if the number of children is reduced by 4?
- 72 beds are arranged in 4 dormitories. How many dormitories do the hostel have if there are 360 beds?

- 17. Case Study 2:** Anoop started renovating his grandparent's house in a village, he constructed a new room but there was a severe shortage of water in the area. To address this issue, he discussed the matter with his friend and they both decided to dig a well. The well would be 20 meters deep and 14 meters in diameter.



Based on the above information answer the following questions.

- If the dimension of the new room is $24\text{m} \times 30\text{m} \times 4\text{m}$. Find the total surface area of the room.

- 2) If the cost of painting is ₹50 per metre square. Find the cost of painting the four walls of the new room.
- 3) What will be the formula for the volume of earth dug out of the well?
- 4) How much earth (Volume) will be dug out if?

Answer Key

| | | | | | | | | | |
|----|---|----|---|-----|--------|-----|----------------------|-----|--|
| Q1 | C | Q5 | B | Q9 | C | Q13 | 240 | Q17 | 1872m ³ |
| Q2 | A | Q6 | A | Q10 | B | Q14 | ₹7520 | | ₹21,600 $\pi r^2 h$ 3080m ³ |
| Q3 | D | Q7 | C | Q11 | C | Q15 | 1875, 1500, 48, 2500 | | |
| Q4 | B | Q8 | A | Q12 | 96000L | Q16 | 10, 48, 6, 20 | | |