



Indian School Al Wadi Al Kabir Pre-Mid Term Examination (2026-27)

Class: VIII

MATHEMATICS

Max. Marks: 30

Date: 17-05-2026

Time: 1 Hour.

General Instructions:

Section A: Multiple Choice Questions (Q.1 to Q.8)

Section B: Source based questions (Q.9 to Q.12)

Section C: Long Answer Questions (Q.13 to Q.18)

Section D: 4 Marks Case study Question (Q.19).

ANSWER KEY

SECTION A Multiple Choice Question (Q.1 to Q.8)							
1.	The number of non-square numbers in between the squares of 41 and 42.						
	A.		B.	82	C.		1M
2.	The cube root of 0.008 is:						
	A.		B.	0.2	C.		1M
3.	The number of digits in the square root of 15,876 is:						
	A.	3	B.		C.		1M
4.	Choose a number which is not a perfect square.						
	A.		B.		C.		1M
					D.	1848	
5.	The value of $\sqrt[3]{\frac{343}{512}}$ is:						
	A.		B.		C.	$\frac{7}{8}$	1M
6.	If the square root of a number is 0.7, what is the number?						
	A.		B.		C.	0.49	1M
7.	The unit place digit in the cube of 9547 is:						
	A.		B.	3	C.		1M
8.	Which of the following is equal to its own cube?						
	A.	-1	B.		C.		1M
	Section B: Source based questions (Q.9 to Q.12)						
	The Math Club at Greenwood School set up a “Number Challenge Booth” during the annual fair. They placed 20 strips of paper in a box, each labelled with a number from 20 to 100 on one side and its square on the other side. Participants were invited to pick one						

	strip at random. Based on the number chosen, they had to answer a question prepared by the Math Club team. Few of the questions given below.	
9.	A student chooses a strip with one side it is 11, the number on the other side is:	
	A. B. 1331 C. D.	1M
10.	Find the least number added to 725 to make it a perfect cube.	
	A. 4 B. C. D.	1M
11.	Find the number of zeros in the cube of 20 is:	
	A. B. C. D. 3	1M
12.	The value of $\sqrt[3]{5 \times 5 \times 13 \times 13 \times 13 \times 5}$ is:	
	A. B. C. 65 D.	1M
Section C: Long Answer Questions (Q13 to Q.18)		
13.	Find the least number to be multiplied with $3 \times 3 \times 5 \times 2$ to make it as a perfect square, also find the square root of the number obtained. Sol: Least no. to be multiplied = $5 \times 2 = 10$ (1m) Required sq.rt = $3 \times 2 \times 5 = 30$ (1m)	2M
14.	Express the number 8^3 as the sum of odd consecutive numbers. $8^2 - (8 - 1) = 64 - 7 = 57$ (1m) $8^3 = 57 + 59 + 61 + 63 + 65 + 67 + 69 + 71$ (1m)	2M
15.	A square-shaped floor of a party hall has an area of $1,296m^2$. Find the length of one side . $\begin{array}{r} 2 \overline{) 1296} \\ \underline{2 } 648 \\ \underline{2 } 324 \\ \underline{2 } 162 \\ \underline{3 } 81 \\ \underline{3 } 27 \\ \underline{3 } 9 \\ \underline{3 } 3 \\ \underline{\phantom{3 }} 1 \end{array}$ $\therefore \sqrt{1296} = 2 \times 2 \times 3 \times 3$ = 36 1 ½ side = 36 (½ m)	2M
16.	Check the number 86 is a perfect square or not by using repeated subtraction method. $86 - 1 = 85$ $85 - 3 = 82$ $82 - 5 = 77$ $77 - 7 = 70$ $70 - 9 = 61$ $61 - 11 = 50$ $50 - 13 = 37$ $37 - 15 = 22$ $22 - 17 = 5$ $5 - 19 = -14$, 85 is not a perfect square. (½ m)	2M
17.	Find the smallest number by which 3528 must be multiplied so that the product becomes a perfect cube. Also find the cube root of the number so obtained.	3M

2	3528
2	1764
2	882
3	441
3	147
7	49
7	7
	1

2m

smallest no. to be multiplied = $3 \times 7 = 21$ (½m)

Required root = $2 \times 3 \times 7 = 42$ (½m)

18. Find the smallest square number which is divisible by each of the numbers 8, 10 and 16

3M

L.C.M of 8,10 and 16 = $2 \times 2 \times 2 \times 2 \times 5 = 80$

2m

Smallest square number which is divisible by 8, 10,16 = $5 \times 80 = 400$ (½m + ½m)

2	8, 10, 16
2	4, 5, 8
2	2, 5, 4
2	1, 5, 2
5	1, 5, 1
	1, 1, 1

Section D: (Case study)

19. The "Greenwood Residency" society plans to pave a square-shaped courtyard within their complex. To achieve an elegant finish, they have chosen square granite slabs. They have purchased exactly **625 slabs** and intend to use all of them to form a seamless, perfect square floor without any gaps. Adjacent to this main courtyard, the residents have also designed a smaller square decorative patch with a side length of **11 m**.

4M



- What will be the length of each side of the courtyard once all 625 slabs are laid?
Side = 25 (1m) (1)
- The number of non-square numbers in between the square of 51 and 52.
Ans: $2 \times 41 = 82$ (½m + ½m) (1m)
- Express 121 as the sum of 11 odd numbers.
Ans: $121 = 11^2 = 1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21$ (2m)
(1m + 1m)

