



Indian School Al Wadi Al Kabir
Mid Term Revision Question Bank (2026-27)
MATHEMATICS
Class: VIII

General Instructions:

Section A: Multiple Choice Questions & Source based Question

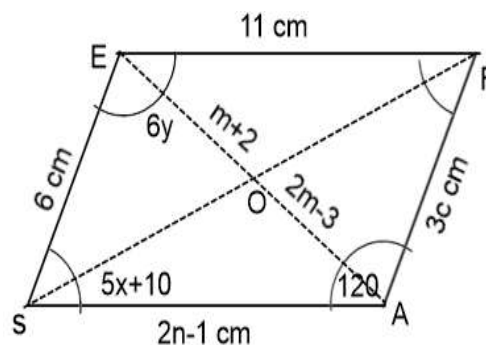
Section B: Short Answer Questions of 2 marks each

Section C: Long Answer Questions (Type – 1) of 3 marks each

Section D: Long Answer Questions (Type – 2) & Case study Questions of 4 marks each.

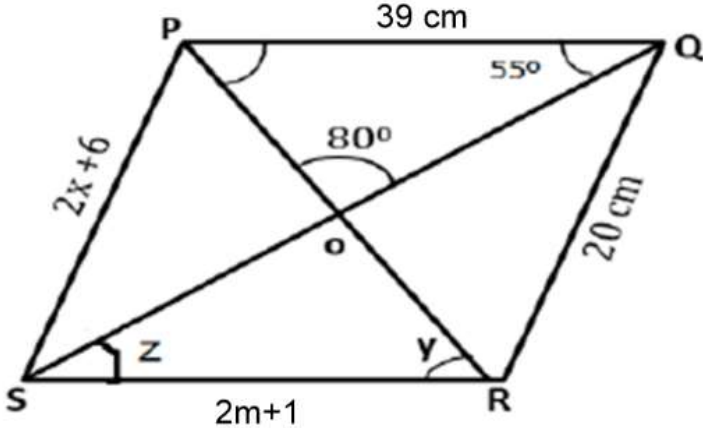
SECTION A Multiple Choice Question									
1.	A designer wants to make a frame with the following properties: All four sides are equal, diagonals bisect each other, and diagonals intersect at 90° . Which among the following quadrilateral would satisfy these conditions?								1M
	A	Rectangle	B	Rhombus	C	Trapezium	D	Parallelogram	
2.	The prime factorisation of a square number is shown as $3 \times 3 \times 5 \times 5 \times 7 \times 7 \times 7 \times p$. Then the smallest value of p is:								1M
	A	3	B	5	C	7	D	9	
3.	The number of natural numbers that lie between 55^2 and 56^2								1M
	A	112	B	110	C	116	D	114	
4.	The multiplicative inverse of $\left(\frac{-5}{9}\right)^{-99}$ is								1M
	A	$\left(\frac{-5}{9}\right)^{99}$	B	$\left(\frac{5}{9}\right)^{-99}$	C	$\left(\frac{-9}{5}\right)^{99}$	D	$\left(\frac{9}{5}\right)^{99}$	
5.	ABCD is a parallelogram. If $\angle A = (2x + 10)^\circ$ and $\angle B = (3x - 5)^\circ$, then the measure of $\angle A$ is_____.								1M
	A	50°	B	60°	C	70°	D	80°	
6.	If $8:12::20:x$, then the value of x is								1M
	A	20	B	32	C	30	D	28	
7.	Three angles of a quadrilateral are 60° , 95° and 125° . What is the measure of the fourth angle?								1M
	A	80°	B	75°	C	105°	D	60°	
8.	Which of the following expression is equal to $x^2 + 10x + 25$								1M
	A	$(x + 5)^2$	B	$(x - 5)^2$	C	$(x + 5)(x - 5)$	D	$(x + 15)(x + 10)$	
9.	If $563x2$ is a multiple of 9, then the value of x is:								1M
	A	1	B	2	C	4	D	6	

10.	The digital root of 463172 is								1M
	A	5	B	8	C	3	D	9	
11.	Which expression always gives an even number?								1M
	A	$4a + 3b$	B	$a^2 + 1$	C	$2x + 2y$	D	$3x + 5y$	
12.	Number of digits will be there in the square root of 99856 is:								1M
	A	5	B	4	C	3	D	2	
13.	$(p + 1)(p - 11) =$ _____								1M
	A	$p^2 + 10p + 11$	B	$p^2 + 10p - 11$	C	$p^2 - 10p + 11$	D	$p^2 - 10p - 11$	
14.	The value of $\sqrt[3]{\frac{216}{27}} + \sqrt{\frac{16}{4}}$								1M
	A	3	B	4	C	5	D	6	
15.	Ratio of 8 kg to 600g is								1M
	A	80:3	B	40:3	C	40:9	D	80:9	
16.	The smallest number by which 686 should be divided to make it a perfect cube is								1M
	A	1	B	2	C	3	D	6	
17.	The standard form of 725000 is								1M
	A	7.25×10^4	B	725×10^{-6}	C	725×10^3	D	7.25×10^5	
18.	PQRS is a trapezium in which $PQ \parallel SR$, $\angle P = 130^\circ$ and $\angle Q = 110^\circ$. Then the measures of $\angle R$ is								1M
	A	70°	B	50°	C	65°	D	55°	
19.	A bakery prepares $(x+5)$ trays of cookies. Each tray contains $(2x+3)$ cookies. The algebraic expression for the total number of cookies will be								1M
	A	$2x^2 + 13x - 15$	B	$2x^2 - 13x + 15$	C	$2x^2 + 13x + 15$	D	$2x^2 - 13x - 15$	
20.	Devangi travels 50m distance in 75 steps, then the distance travelled in 375 steps is								1M
	A	250 m	B	125m	C	750 m	D	2500m	
21.	Section B: Source based question- 5 Marks								
	In a Mathematics class, the teacher was teaching the topic Quadrilaterals. She explained the different types of quadrilaterals and discussed their properties related to sides, angles and diagonals. That weekend, Ankit visited his friend's house to play. While they were playing outdoors, it suddenly started raining heavily, so they went to the terrace. Ankit noticed that the terrace floor was designed in the shape of a parallelogram SAFE, as shown in the figure. Based on the above information answer the questions following below:								



I	The value of y is								1M
	A	60°	B	80°	C	20°	D	180°	
II	The value of x is								1M
	A	60°	B	80°	C	10°	D	50°	
III	The value of n is								1M
	A	12 cm	B	6 cm	C	11 cm	D	10 cm	
IV	The value of c is								1M
	A	2 cm	B	3 cm	C	4 cm	D	5 cm	
V	Diagonals SF and AE intersect at point O. If EO = (m + 2) cm and OA = (2m – 3) cm, then, and the total length of diagonal AE is								1M
	A	5 cm	B	7 cm	C	10 cm	D	14 cm	
22.	A carpenter Ramu is working on two pieces of wood. One is a square shaped plank with an area of 576 square metres. The other is a cubic block of wood with a volume of 3375 cubic cm. Ramu needs the dimensions of both the objects to make a certain design. Based on the above information, answer the following questions:								
I	What is the side length of the square plank?								1M
	A	35 m	B	56 m	C	26 m	D	24 m	
II	What is the edge length of the cubic block of wood?								1M
	A	35 cm	B	25 cm	C	15 cm	D	5 cm	
III	Ramu also has a piece of wood of volume 500 cm ³ . What is the smallest number he needs to multiply its volume by to make it a perfect cube?								1M
	A	5 cm	B	2 cm	C	3 cm	D	4 cm	
IV	Evaluate $\sqrt[3]{\frac{10648}{2197}}$								1M
	A	$\frac{11}{13}$	B	$\frac{22}{2197}$	C	$\frac{22}{13}$	D	$\frac{8}{2197}$	
V	The smallest 2-digit number that is both a perfect square and a perfect cube								1M
	A	36	B	81	C	27	D	64	
	Section B: Long Answer Questions -2 marks each								
23.	A cyclist covers 42 km in 2 hours 48 minutes. How much distance will it cover in 5 hours if it maintains the same speed?								2M
24.	Expand (7a – 3b) ² using suitable identity.								2M
25.	Find the value of (2 ⁻² × 2 ⁵) ³ ÷ 2 ⁶								2M

26.	Find the cube root of 5832 by the method of prime factorisation.	2M
27.	Using divisibility test check whether 2,346 is divisible by both 6 and 9.	2M
28.	A shopkeeper sells notebooks for ₹ 35 each and geometry box for ₹65 each. If a school orders 30 notebooks and 30 geometry boxes, find the total cost using distributive property.	2M
29.	The four angles of a quadrilateral are in the ratio 3:4:5:6. Find the measure of each angle.	2M
30.	Divide ₹ 5400 between two friends in the ratio 4:5	2M
Section C: Long Answer Questions (Type – 1) of 3 marks each		
31.	By what least number should 3528 be divided so that the quotient is a perfect square? Find the square root of the quotient so obtained.	3M
32.	A train is moving at a uniform speed of 75 km/hour. (i) How far will it travel in 20 minutes? (ii) Find the time required to cover a distance of 250 km.	3M
33.	Simplify: $\frac{4^{-3} \times a^{-5} \times b^{-4}}{4^{-5} \times a^{-8} \times b^3}$	3M
34.	Expand the expression $(3a - 4b)(2a + 4b - 5)$. Also find the value of the expression when the value of $a=3$, $b=(-1)$	3M
35.	Using divisibility rule check whether 15238496 is divisible by 11. Show proper working. Also check whether the number is divisible by 8	3M
36.	A partnership business started by investing ₹60,000 and ₹ 40,000. If the total profit is ₹25,000, how much does each partner receive if the profit is shared in the ratio of their investment?	3M
37.	Use the powerline of 7 to answer the following question: i) $823543 \div 343$ ii) $2401 \times \frac{1}{343}$ iii) $\frac{1}{7} \div \frac{1}{2401}$	3M
38.	Construct a parallelogram with adjacent sides of lengths 5 cm and 6 cm and an angle of 50° between them.	3M
Section D: Long Answer Questions (Type – 2) & Case study of 4 marks each		

39.	The following table represents heights of the poles (in m) with their corresponding lengths of shadows formed (in m): <table><tr><td>Heights of poles (in m)</td><td>8</td><td>a</td><td>24</td><td>c</td><td>80</td></tr><tr><td>Length of the shadow (in m)</td><td>5</td><td>10</td><td>b</td><td>35</td><td>d</td></tr></table> Find the value of a, b, c and d.	Heights of poles (in m)	8	a	24	c	80	Length of the shadow (in m)	5	10	b	35	d	4M
Heights of poles (in m)	8	a	24	c	80									
Length of the shadow (in m)	5	10	b	35	d									
40.	Using properties of diagonals, construct a Rhombus whose diagonals are of length 6 cm and 8 cm.	4M												
41.	For a school event, four students were assigned four consecutive registration numbers. The sum of their registration numbers was 214. a) Let the first registration number be x. Write the other three registration numbers. b) Find the four registration numbers.	4M												
42.	Find the smallest number by which 3645 must be multiplied so that the product obtained is a perfect cube. Also find the cube root of the number so obtained.	4M												
43.	Evaluate using suitable identity: i) 96×104 ii) 206^2 iii) 949×101 iv) 99^2	4M												
44.	In figure, PQRS is a parallelogram and $PS = 2x+6$, $RQ = 20\text{cm}$, $RS = 2m+1$, $PQ = 39\text{ cm}$. Find the values of x, y, z and m. 	4M												
45.	i) Evaluate $\left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{5}\right)^{-2} + \left(\frac{1}{4}\right)^{-2}$ ii) Simplify: $\left[\left(\frac{2}{9}\right)^{15} \div \left(\frac{2}{9}\right)^{13}\right] \div \left(\frac{2}{9}\right)^2$	4M												
46.	CASE STUDY -1: The Token Distribution Game During a mental math activity, a teacher distributed tokens with numbers written on them. She told the class that all tokens that leave a remainder of 4 when divided by 9 belong to "Group A". Answer the following questions based on the given information: i) Write the general algebraic expression for all numbers in Group A. ii) Check whether 40 and 67 belong to Group A by verifying their remainders. iii) Write the algebraic expression for numbers that leave a remainder of 2 when divided by 6, and list any two such numbers. 	4M												

47.	CASE STUDY - 2: Sonal is preparing a fruit juice by mixing mango pulp and water in the ratio 2:5. She wants 21 cups of juice. Based on the information, answer the following questions: i) How many cups of mango pulp and water are required? ii) If she adds two more cups of mango pulp, what will be the ratio? iii) If she wants to prepare 35 cups of juice, how much mango pulp and water will she need?		4M
48.	CASE STUDY - 3: Upgrading the Playground! Our local sports club is upgrading its field to make space for a brand-new running track and spectator benches! Originally, the field was a simple rectangle with a length of 'a' meters and width of b meters. To fit the new features, the club manager decided to increase the length by 4 meters and decrease the width by 2 meters. Answer the following questions based on the given information: (i) Write down the algebraic expressions for: The Original Area of the field and the New Area of the field. (ii) Use the distributive property to multiply out and simplify the expression for the New Area. (iii) Write down an algebraic expression for the New Area - Original Area (iv) If the field was originally a square with side lengths a = 20 meters and b = 20 meters, calculate the exact change in area.		4M

Answers							
1	B	2	C	3	B	4	A
5	D	6	C	7	A	8	A
9	B	10	A	11	C	12	C
13	D	14	B	15	B	16	B
17	D	18	A	19	C	20	A
21	i)c ii)10 iii)6 iv)a v)14cm	22	i)d ii)c iii)b iv)c v)d	23	75 km	24	$49a^2 - 42ab + 9b^2$
25	8	26	18	27	Yes, no	28	₹3000
29	60°, 80°, 100°, 120°	30	₹2400 ₹3000	31	2, 42	32	25 km, 200 min

33	$\frac{16 \times a^3}{b^7}$	34	-39	35	No, yes	36	₹15000 ₹10000
37	2401, 7, 343	39	a=16 b=15 c=56 d=50	41	52, 53, 54, 55	42	25, 45
43	9984, 42436, 95849, 9801	44	X=7 Y=45° Z=55° M=19	45	i)50 ii)1	46	i)9x+4 ii)yes iii)6x+2, 8, 14
47	i)6,15 ii)8:15 iii)10,25	48	i)ab m ² , (a+4)(b-2)	48	ii) ab - 2a + 4b - 8	48	iii) 4b - 2a - 8m ² iv)32m ²

******* All the Best*******