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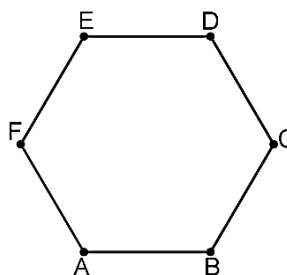
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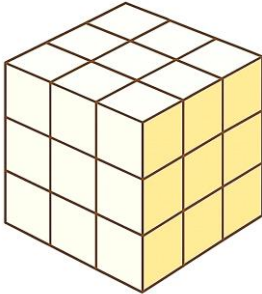
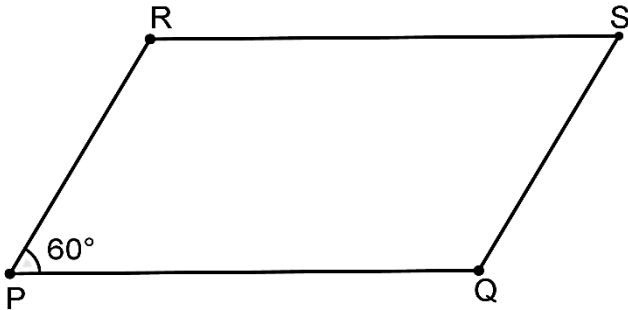
INDIAN SCHOOL SALALAH**FIRST TERM EXAMINATION – SEPTEMBER 2025****Class: VIII****MATHEMATICS (041)****Date: 29/09/2025****Time: 3 hours****Maximum Marks: 80****General Instructions:**

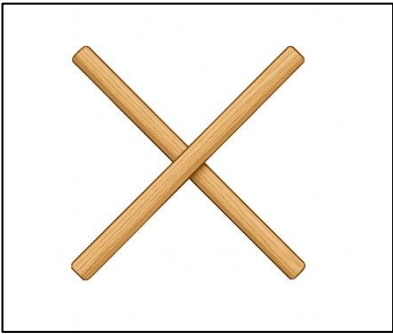
- All questions are compulsory.
- This question paper consists of 30 questions divided into 5 sections.
- Section A contains 6 questions of 1 mark each. Section B contains 6 questions of 2 marks each. Section C contains 10 questions of 3 marks each. Section D contains 7 questions of 4 marks each and section E contains one case study question of 4 marks.
- Internal choices have been provided in Section C and Section D. You have to attempt only one of the choices in such questions.

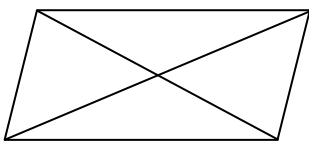
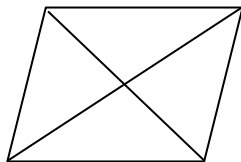
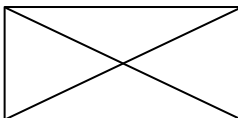
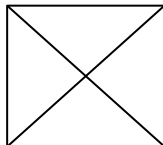
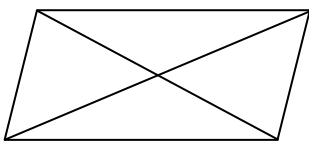
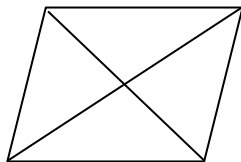
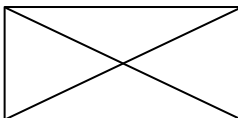
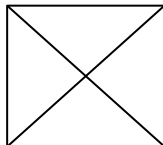
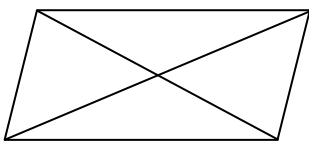
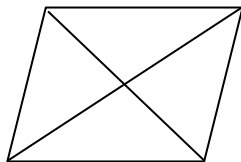
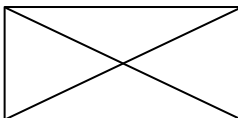
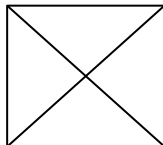
NO	SECTION A Q.1 to Q.6 are multiple choice questions. Select the most appropriate answer from the given four options.	MARKS
1	$\frac{1}{2} + \frac{3}{4} = \frac{3}{4} + \frac{1}{2}$ is an example to show that - Addition of rational numbers is commutative. - Rational numbers are closed under addition. - Addition of rational numbers is associative. - Addition of rational numbers is not commutative.	1
2	Which letter represents the location of $\sqrt{36}$ on a number line - A - B - D - C	1
3	If 4 and 8 are positive integers, then the solution of the equation $4x = 8$ has to be - Positive - Negative - One - Zero	1
4	For which of the following, all angles are equal? - Rectangle - Parallelogram - Trapezium - Quadrilateral	1

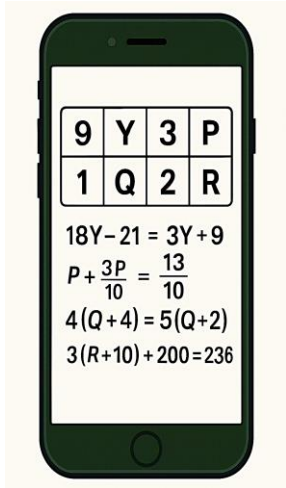
5	A basket has 20 apples and 5 oranges. Then, which of the following is the ratio of the number of oranges to number of apples? a) 1:4 b) 7:5 c) 5:2 d) 1:3	1
	Question 6 contains two statements: an ASSERTION and a REASON, followed by four choices, with only one correct answer.	
6	Assertion (A): Cube of 4 is 64, which is an even number. Reason (R): 4 is an even number and the cube of an even natural number is also, even. a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A). b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A). c) Assertion (A) is true but reason (R) is false. d) Assertion (A) is false but reason (R) is true.	1
	SECTION B	
7	What is meant by a perfect square? Give an example.	2
8	Verify the commutative property $x + y = y + x$ of rational numbers by using $x = 7$ and $y = \frac{1}{2}$.	2
9	Solve the linear equation for x: $\frac{3x-8}{2x} = 1$	2
10	Write any two consecutive cube numbers.	2
11	An item marked at ₹ 850 is sold for ₹ 611. What is the discount and discount %.	2
12	Consider the regular polygon ABCDEF which is shown in the given adjoining figure. a) Is it a convex or concave polygon? b) How many sides does it have, and what is the name of this polygon?	2



	SECTION C	
13	By using prime factorisation, find $\sqrt{1225}$.	3
14	A student builds a solid cube using small cubes, each with a side length of 1 unit, as shown in the adjoining image. The cube has 3 layers, with each layer containing 9 cubes arranged in 3 rows and 3 columns. a) How many small cubes are used in total? b) Is the total number of cubes a perfect cube? Justify your answer. c) What is the length of side of the large cube formed? 	3
15	Find the value of x in the given equation: $\frac{x+1}{4} = \frac{x-2}{3}$ OR Find the value of y in the given equation: $0.4(3y - 1) = 0.5y + 1$	3
16	In parallelogram PQRS, find $\angle Q$, $\angle R$ and $\angle S$ and state the properties you used to find them. 	3
17	In each of the following, state whether the statements are True or False: a) If $\frac{p}{q}$ is a rational number, then q cannot be equal to zero. b) For all rational numbers x, y and z : $(x - y) - z = x - (y - z)$. c) Zero is not a rational number.	3
18	Calculate the amount on ₹ 5000 at 10 % per annum for 2 years compounded annually.	3

19	A ladder 10 m long rests against a vertical wall. If the foot of the ladder is 6 m away from the wall and the ladder just reaches the top of the wall, how high is the wall?	3
20	Simplify $\left(\frac{1}{5} \times \frac{2}{15}\right) + \left(\frac{1}{5} \times \frac{2}{5}\right)$ by using suitable property and also name the property.	3
21	Is 392 a perfect cube? If not, find the smallest natural number by which 392 must be multiplied so that the product is a perfect cube.	3
22	Two sticks, each of length 6 cm, are crossing each other such that they bisect each other, as shown in the adjoining figure.  a) What is the length of each segment formed at the point where the sticks bisect each other? b) What geometric shape is formed by joining the four endpoints of the sticks? c) If the sticks bisect each other at right angles (90°), what type of quadrilateral is formed by their endpoints?	3
	SECTION D	
23	Consider the following pattern which shows a way to find the square of a number that ends with 5. $25^2 = (2 \times 3) \times 100 + 25 = 625$ $35^2 = (3 \times 5) \times 100 + 25 = 1225$ $75^2 = (7 \times 8) \times 100 + 25 = 5625$ a) What do you observe in the squares of these numbers ending with 5? b) Using the above pattern, find: i) 15^2 ii) 45^2 c) How will you express the number $(a5)^2$ by using the above pattern?	4
24	Find $\sqrt[3]{13824}$ OR Find $\sqrt[3]{17576}$	4

25	a) What is the minimum interior angle possible for a regular polygon, and what is the shape? b) An interior angle of a regular polygon is 108°. i) What is the measure of an exterior angle? ii) How many sides does it have?	4																				
26	Complete the following table by filling in the blanks based on the properties of the diagonals of given quadrilaterals. <table><tr><th>Sl. No</th><th>Name of the quadrilaterals</th><th>Diagonals of a quadrilaterals</th><th>Shape</th></tr><tr><td>a)</td><td>Parallelogram</td><td>.....</td><td></td></tr><tr><td>b)</td><td>Rhombus</td><td>.....</td><td></td></tr><tr><td>c)</td><td>Rectangle</td><td>.....</td><td></td></tr><tr><td>d)</td><td>Square</td><td>.....</td><td></td></tr></table>	Sl. No	Name of the quadrilaterals	Diagonals of a quadrilaterals	Shape	a)	Parallelogram			b)	Rhombus			c)	Rectangle			d)	Square			4
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27	Name the property used in each of the following (a) to (c) and fill in the blanks: a) $\frac{2}{-7} + 0 = \dots\dots\dots$ b) $\frac{3}{8} \times 1 = \dots\dots\dots$ c) $\left(\frac{1}{5} \times \frac{5}{6}\right) \times \frac{7}{9} = \dots\dots\dots \times \left(\frac{5}{6} \times \frac{7}{9}\right)$ d) Write any one example of the statement “Rational numbers are closed under multiplication”.	4																				

28	The area of a rectangular field whose length is twice its breadth is $2450m^2$. a) If you take the breadth of the field to be x meters, how will you express length of the rectangular field? b) Find breath x of the rectangular field. c) Find the length of the rectangular field. d) Find the perimeter of the rectangular field.	4																
29	Suppose you go to a departmental store and purchase the following articles. The shopkeeper gives you a bill, as shown below. <table border="1"><thead><tr><th>S. No</th><th>Items</th><th>Cost (In ₹)</th><th>VAT %</th></tr></thead><tbody><tr><td>1</td><td>Biscuits</td><td>₹ 25</td><td>5%</td></tr><tr><td>2</td><td>Medicine</td><td>₹ 90</td><td>10%</td></tr><tr><td>3</td><td>Clothes</td><td>₹ 300</td><td>2%</td></tr></tbody></table> Calculate the total amount to be paid.	S. No	Items	Cost (In ₹)	VAT %	1	Biscuits	₹ 25	5%	2	Medicine	₹ 90	10%	3	Clothes	₹ 300	2%	4
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1	Biscuits	₹ 25	5%															
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	SECTION E Case-study based question. Read the following passage and answer the questions given below:																	
30	Ranika wanted to get her friend Radhika’s mobile number. But instead of giving it directly, Radhika decided to present it as a math puzzle with her. She gave the number in this coded form: 9 Y 3 P 1 Q 2 R 3 Radhika said: "You can find the actual digits of Y, P, Q, and R by solving the following equations." Solve these equations to find the missing digits: a) $18Y - 21 = 3Y + 9$ b) $P + \frac{3p}{10} = \frac{13}{10}$ c) $4(Q + 4) = 5(Q + 2)$ d) $3(R + 10) + 200 = 236$ 	1 1 1 1																