



Date: 27/9/24
GRADE: VIII

Term 1 (2024-25)
MATHEMATICS

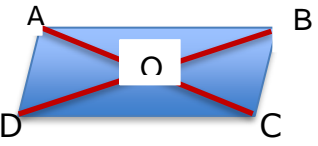
Marks: 40
Time: 2Hrs

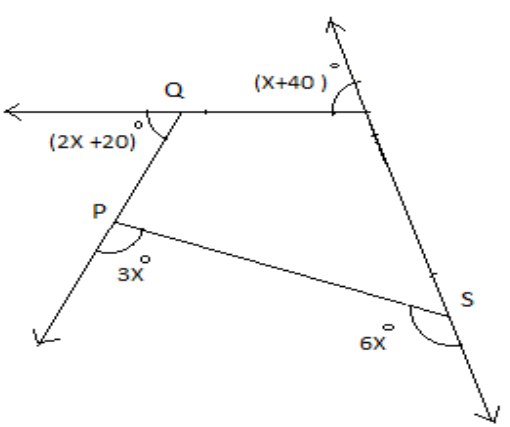
Name:

Q.No.	Questions	Mark
	SECTION A	
	MULTIPLE CHOICE QUESTIONS (Choose the correct answer from the given options)	
1	The standard form of a rational number $\frac{35}{42}$ is : a) $\frac{4}{5}$ b) $\frac{5}{6}$ c) $\frac{6}{7}$ d) $\frac{3}{4}$	1
2	Sum of the angles of a quadrilateral is : a) 180° b) 270° c) 160° d) 360°	1
3	Find the value of $\frac{-3}{4} \times \frac{5}{6}$. a) $\frac{-5}{8}$ b) $\frac{15}{24}$ c) $\frac{-3}{4}$	1

	d) $\frac{5}{8}$	
4	A rational number can be expressed in the form of: a) $\frac{p}{q}$ b) $p \times q$ c) $p+q$ d) p_q	1
5	The age of the father is three times the age of the son. If the age of son is 15 years old, then the age of father is: a) 50 years b) 55 years c) 40 years d) 45 years	1
6	Additive inverse of $\frac{5}{8}$ is a) $\frac{5}{8}$ b) $\frac{8}{5}$ c) $\frac{-5}{8}$ d) $\frac{-8}{5}$	1
7	The associative property is applicable to: a) Addition and subtraction b) Multiplication and division c) Addition and Multiplication d) Subtraction and Division	1
8	An equivalent fraction of $\frac{3}{7}$ is: a) $\frac{6}{14}$ b) $\frac{15}{28}$ c) $\frac{7}{21}$ d) $\frac{12}{14}$	1

FILL IN THE BLANKS		
9	$\left \frac{-5}{9} \right = \frac{5}{9}$	1
10	In $\frac{9}{17} \times \left(\frac{34}{81} \times \frac{-1}{2} \right) = \left(\frac{9}{17} \times \frac{34}{81} \right) \times \frac{-1}{2}$, Associative Property of multiplication is used.	1
11	Linear equation is one whose maximum power is 1	1
12	A parallelogram in which all sides are equal is called Rhombus	1
13	The measure of each exterior angle of a regular octagon is 45°	1
Write 'TRUE OR FALSE'.		
14	Zero is not a rational number. False	1
15	Between any two rational numbers there exists infinitely many rational numbers. True	1
16	$\sqrt{x} + 6$ is not a linear equation. False	1
MATCH THE FOLLOWING		
17	COLUMN A	COLUMN B
18	$\frac{-5}{7} = \frac{\dots}{21}$	a) -2
19	Multiplicative identity for rational numbers is	b) -15
20	The solution of $10x + 9 = 7x + 3$ is $x = \dots$.	c) octagon
21	A polygon having 8 sides is called	d) 1
SECTION B		
Answer the following questions.		
21	Find 4 rational numbers between $\frac{1}{3}$ and $\frac{1}{2}$. $\frac{5}{12}, \frac{17}{48}, \frac{9}{24}, \frac{11}{36}$	2

22	<p>Solve $3 + 7x = 10x + 9$.</p> <p>$7x - 10x = 9 - 3$ $-3x = 6$ $x = -6/3$ $= -2$</p>	2
23	<p>The angles of a triangle are in the ratio 1:2:3. Find the angles.</p> <p>$x + 2x + 3x = 180$ sum of angles in a triangle = 180° $6x = 180$ $x = 180/6 = 30$ The angles are $30^\circ, 60^\circ$ and 90°</p>	2
24	<p>Three angles of a quadrilateral measures $60^\circ, 135^\circ$ and 80°. Find the fourth angle.</p> <p>$60 + 135 + 80 + x = 360$ $275 + x = 360$ $x = 360 - 275$ $x = 85^\circ$</p> <p style="text-align: center;">OR</p> <p>Construct a rhombus in which diagonal AC = side AB = 5cm.</p>	2
25	<p>Prove that the diagonals of a parallelogram bisect each other.</p>  <p>$\angle BAO = \angle DCO$ Alternate Angles $\angle ABO = \angle CDO$ Alternate Angles AB parallel to DC AB = DC By ASA congruence rule triangle ABO congruent to triangle DCO. Therefore DO = OB Similarly AO = CO</p>	2
26	<p>Solve the equation: $\frac{9u+2}{3u-1} = \frac{-5}{6}$</p> <p>$6(9u+2) = -5(3u-1)$ $54u+12 = -15u-5$ $54u+15u = -5-12$ $69u = -17$ $u = -17/69$</p>	3

	<p style="text-align: center;">OR</p> <p>The perimeter of a rectangular field is 194 m. If its length is 5m more than thrice its breadth, Find the length and breadth. of the rectangle.</p> <p>Perimeter = $2(l+b)=194$ Let the breadth be x. Length=$3x+5$ $2(3x+5+x)=194$ $2(4x+5)=194$ $4x+5=97$ $4x=97-5=92$ $X=92/4$ $=23$ breadth=23m length = 74m</p>	
27	<p>Calculate the value of x and the measure of all interior angles of the quadrilateral.</p>  <p>$2x+20+x+40+6x+3x=360$ sum of exterior angles=360° $12x+60=360$ $12x=300$ $X=300/12=25^\circ$ Interior Angles $X+40=25+40=65^\circ$ $\angle R=180-65=115^\circ$ $2x+20=70^\circ$ $\angle Q=180-70=110^\circ$ $3x=3 \times 25=75^\circ$ $\angle P=180-75=105^\circ$ $6x=6 \times 25=150^\circ$ $\angle S=180-150=30^\circ$</p>	3
28	<p>Use appropriate properties to evaluate,</p> $\left(\frac{-2}{7} \times \frac{-1}{7}\right) + \left(\frac{-1}{7} \times \frac{-3}{7}\right) - \left(\frac{2}{7} \times \frac{1}{-7}\right) + \left(\frac{-1}{7} \times \frac{-3}{10}\right)$ <p>$2/49 + 3/49 - -2/49 + 3/70 =$</p> <p>$7/49 + 3/70$</p>	4

	$70/490 + 21/490$ $= 91/490$ $= 13/70$	
	THE END	