INDIAN SCHOOL AL WADI AL KABIR

MID TERM EXAMINATION (2024-25)

Class: VIII Sub: MATHEMATICS Max Marks: 80

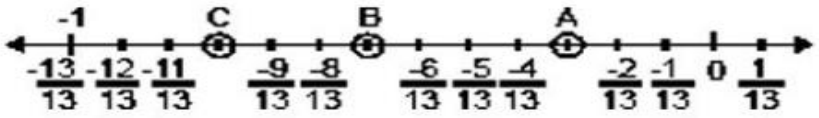
Date: 26/09/2024 Set- II Time: 2 ½ hours

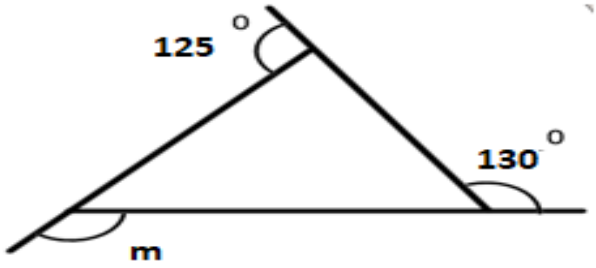
***General Instructions*:**

1. This question paper contains 4 sections, Section A to D
2. All questions are compulsory.
3. Section A has 20 questions carrying 1 mark each.
4. Section B has 5 questions carrying 2 marks each.
5. Section C has 6 questions carrying 3 marks each.
6. Section D has 8 questions carrying 4 marks each.
7. This question paper contains **6** pages.

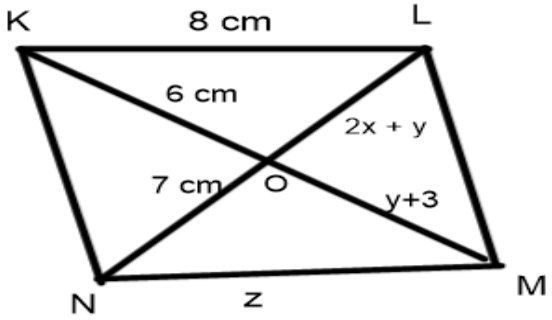
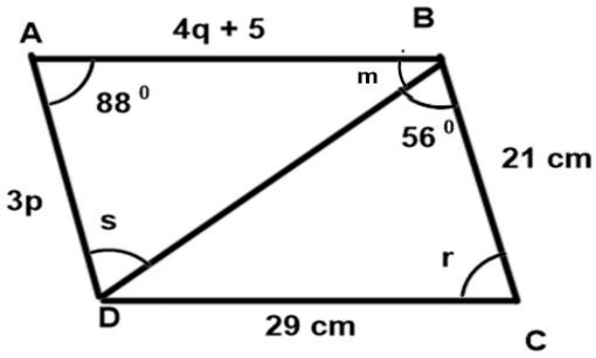
Section A: Multiple Choice Question (Q.1 to Q.15) of **1** mark each

1.	If 8p – 5= 2p +13, then the value of p is:						
	A	2	**B**	-2	**C**	3	**D**	-3
2.	Which of the following numbers square root ends with 9?						
	A	1156	**B**	1444	**C**	2809	**D**	2401
3.	The standard form of 0.00005789 is:						
	A	5.789×10^{5}	**B**	5.789×10^{-5}	**C**	5789×10^{-5}	**D**	57.89×10^{-5}
4.	Additive inverse of $\frac{5}{7}\times\frac{-2}{15}$ is:						
	A	$\frac{2}{21}$	**B**	$\frac{21}{-2}$	**C**	$\frac{-2}{21}$	**D**	$\frac{-21}{2}$
5.	The value of $[\{(2^3)^2 \div 2^5\} + (2^0+3^0)^2$ is:						
	A	3	**B**	4	**C**	6	**D**	1

6.	In parallelogram ABCD,$\angle A$ = 118^0, then the measure of$\angle B$ is: 							
	A	118^0	**B**	62^0	**C**	100^0	**D**	92^0
7.	Identify the rational numbers represented by the points A, B and C 							
	A	$\frac{-10}{13}, \frac{-7}{13}, \frac{-3}{13}$	**B**	$\frac{-3}{13}, \frac{-7}{13}, \frac{-10}{13}$	**C**	$\frac{-7}{13}, \frac{-3}{13}, \frac{-10}{13}$	**D**	$\frac{-10}{13}, \frac{-3}{13}, \frac{-7}{13}$
8.	Two angles of a quadrilateral are equal and the other angles are 76^0 and 110^0. The measure of equal angles is:							
	A	137^0	**B**	110^0	**C**	173^0	**D**	87^0
9.	The value of $(\frac{3}{5})^{-3}$ is:							
	A	$\frac{-27}{125}$	**B**	$\frac{125}{27}$	**C**	$\frac{27}{125}$	**D**	$\frac{-125}{27}$
10.	In the summer, a survey was conducted among few people about their favourite drinks .15% people likes cold coffee. The central angle of the sector representing this on a pie chart is :							
	A	35^0	**B**	45^0	**C**	60^0	**D**	54^0
11.	The value of $\frac{\sqrt{144\times25}}{\sqrt{36}}$ is:							
	A	16	**B**	10	**C**	6	**D**	12
12.	The property used in $\frac{-5}{11} + (\frac{1}{5} + \frac{-2}{9}) = (\frac{-5}{11} + \frac{1}{5}) + \frac{-2}{9}$ is:							
	A	Distributivity	**B**	Identity	**C**	Associativity	**D**	Commutativity

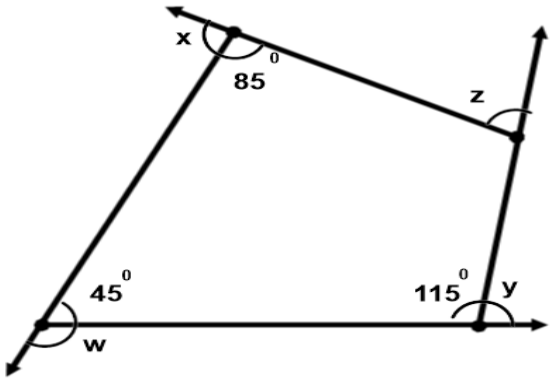
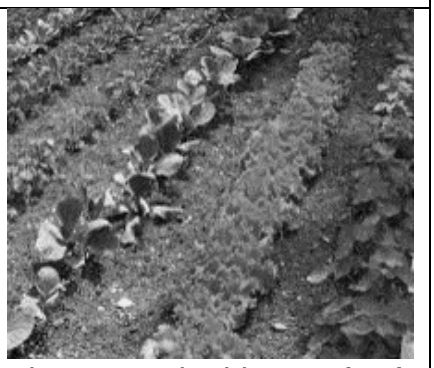
13.	How many non-square numbers are there between 45^2 and 46^2?						
	A	120	**B**	90	**C**	100	**D**	92
14.	The ratio of boys and girls in the class is 9:5. The number of boys is 12 greater than number of girls. The number of girls is:						
	A	27	**B**	15	**C**	21	**D**	18
15.	In figure the value of m is : 						
	A	125^0	**B**	130^0	**C**	105^0	**D**	100^0
16.	Source based Question -5 Marks Sanjay and friends went to a carnival. In one of the game stalls they found spinning prize wheel. Sanjay and Rohit decided to play the game to check their fortune. Based on the information answer the following Questions. 						
I	If the spinner stops at odd number, they would get ₹10. The probability of getting ₹10 is:						
	A	$\frac{1}{6}$	**B**	$\frac{1}{2}$	**C**	$\frac{5}{6}$	**D**	$\frac{1}{3}$
II	The probability of getting green sector with odd number is:						
	A	$\frac{1}{2}$	**B**	$\frac{1}{6}$	**C**	1	**D**	$\frac{1}{3}$

III	Red, green and blue are primary colours. The probability of getting primary colour sector with odd number is:							
	A	$\frac{1}{3}$	**B**	$\frac{1}{2}$	**C**	$\frac{5}{6}$	**D**	0
IV	Which of the following can not be the probability of an event?							
	A	1	**B**	0	**C**	$\frac{8}{7}$	**D**	$\frac{5}{8}$
V	If the spinner stops at sector with any colours present on the Indian flag, Sanjay and Rohit would get ₹25, the probability of winning ₹25 is:							
	A	$\frac{1}{3}$	**B**	$\frac{1}{2}$	**C**	$\frac{1}{6}$	**D**	$\frac{2}{5}$
Section B: Short Answer Questions (Type – 1) of **2** marks each (Q.17 to Q.21)								
17.	Find the Pythagorean triplet whose one number is 14.							
18.	Find the measure of the exterior angles of a regular octagon. Also, find the measure of each interior angle of the regular octagon?							
19.	Find by distributive property: $\frac{3}{7} \times \frac{-5}{4} + \frac{3}{7} \times \frac{9}{3}$							
20.	Simplify and write with positive exponent: $[(\frac{3}{11})^{-3} \times (\frac{3}{11})^{5}] \div (\frac{3}{11})^{4}$							
21.	Solve the equation: $2(t+5) = 7(t-3) - 14$							
Section C: Long Answer Questions (Type – 1) of **3** marks each (Q.22 to Q.27)								
22.	Simplify by laws of exponents: $\frac{49^{-1} \times 5^{-2} \times p^{6}}{7^{-4} \times 125^{-1} \times p^{4}}$							
23	Find square root of 6889 by division method.							

24.	If the difference between two numbers is 48 and the ratio of the numbers is 7:3, then find the two numbers?
25	In figure KLMN is a Parallelogram. The diagonals KM and LN meet at O. OK =6cm, ON=7cm OL=2x +y and OM=y+3. Find the values of x, y and z. 
26.	Find the value of 'm' if $\left(\frac{-3}{7}\right)^{2m+1} \times \left(\frac{-3}{7}\right)^{7} = \left(\frac{-3}{7}\right)^{14}$
27	Represent $\frac{-3}{8}$, $\frac{-1}{8}$, $\frac{5}{8}$ and $\frac{7}{8}$ on a number line.
	Section D: Long Answer Questions (Type – 2) (Q.28 to Q.33) & Case study (Q.34 &35) of **4** marks each
28.	The sum of three consecutive multiples of 7 is 777.Find the multiples.
29.	In figure, ABCD is a parallelogram, Find the values of m, p, q, r and s. (Give reasons) 
30.	The table shows data collected during a survey conducted on the favourite sports item by a group of students.

Sports item	Cricket	Football	Badminton	Table Tennis	Total
Number of students	60	45	40	35	180

Draw a pie chart to represent the information.

31.	Find 4 rational numbers between $\frac{4}{5}$ and $\frac{5}{6}$.
32.	Find the smallest number by which 4032 to multiplied to get a perfect square number. Also find the square root of the number so obtained.
33.	In given quadrilateral, find the values of x, y, z and w. 
34.	**Case Study-1**  Mr. Kishore is a farmer. Under Green India Mission Project, he got 850 plants. He wished to plant the plants in such a way that the number of rows is equal to number of columns since he has square plot. Based on the information answer the following. I. How many plants left out after planting? (2m) II. What is the number of rows of plants? (1m) III. Find the value of 1+3+5+7+9+11+13+15+17+19+21 without actual addition. (1m)
35.	**Case Study-2**  During the free lesson, students decided to play a game about mathematical concepts. Using flashcards, get students competing against each other on whatever skill you're working on. The students were seated in a circle. Have one student stand behind another. The same flashcard will be shown to them. Whichever of the two gets the answer correctly stands behind the next student. Students continue to see if they can make it all "around the world". Few questions written given on the cards are given below. Answer the following questions. I. Evaluate: $(\frac{1}{5})^{-2} + (\frac{1}{3})^{-2} - (\frac{1}{7})^{-1}$ (2m) II. Find the multiplicative inverse of $[(\frac{8}{11})^{-2} \times \frac{8}{11})^{5}]$ (1m) III. Find the usual form of (a) 8.34×10^{-4} (b) 5.132×10^{5} (1m)

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