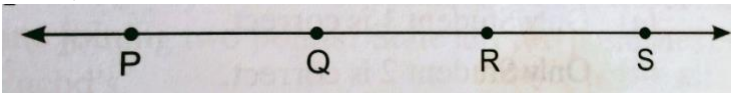


<p align="center"><b>BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.</b>  <b>SEPTEMBER ASSIGNMENT(2025-26)</b>  <b>CLASS- IX (MATHEMATICS)</b>  <b>TOPIC: INTRODUCTION TO EUCLID'S GEOMETRY, LINEAR EQUATIONS IN TWO VARIABLES, CO-ORDINATE GEOMETRY, HERON'S FORMULA, STATISTICS</b></p>	
<p align="center"><b>SECTION –A (MULTIPLE CHOICE QUESTIONS)</b></p>	
1.	<p>Amit's school is 5 km to the west and 3 km north of his house. He represented his house and his school on a coordinate grid, with his house located at the origin, and the positive x- axis represent the direction that is east of his house. If 1 unit on the co-ordinated grid represents 1 km, What will be the coordinate of his school?</p> <p>(a) (5,3)  (b) (3,5)  (c) (-5,3)  (d) (-3,5)</p>
2.	<p>Let y varies directly as x. If <math>y = 24</math>, when <math>x = 8</math>, then the linear equation is</p> <p>(a) <math>3y = x</math>  (b) <math>y = x</math>  (c) <math>y = 4x</math>  (d) <math>y = 3x</math></p>
3.	<p>Assertion (A) : If <math>a+b = 5</math>, then <math>a + b + c = 5 + c</math>  Reason (R) : If equals are added to equals , the wholes are equal.</p> <p>(a) Both Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A).  (b) Both Assertion (A) and Reason (R) are the 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 and Reason (R) is true.</p>
<p align="center"><b>SECTION – B( 2 MARKS QUESTIONS)</b></p>	
4.	<p>In the given figure <math>PR = QS</math>, then show that <math>PQ = RS</math>. Name the mathematician whose postulate/axiom is used for the same.</p> 
5.	<p>The cost of a toy horse is same as that of cost of 3 balls. Express this statement as a linear equation in two variables. Also find its two solutions.</p>
<p align="center"><b>SECTION – C (3 MARKS QUESTIONS)</b></p>	
6.	<p>In field of dimensions <math>60\text{ m} \times 50\text{ m}</math>, a triangular park is constructed. If the dimensions of the park is <math>50\text{ m}</math> , <math>45\text{ m}</math> and <math>35\text{ m}</math>, find the area of the remaining field.</p>
7.	<p>If a point O lies between two points P and R such that <math>PO = OR</math> then prove that <math>PO = \frac{1}{2} PR</math>.</p>
<p align="center"><b>SECTION – D (5 MARKS QUESTIONS)</b></p>	

8.	If each side of a triangle is doubled, then find the ratio of area of new triangle thus formed and the given triangle.					
9.	Draw a histogram and frequency polygon to represent the following data :					
	Class interval	10-15	15-20	20-25	25-30	30-35
	Frequency	3	6	7	9	5
<b>SECTION – E(4 MARK QUESTIONS)</b>						
10.	<p>Rajat has to attend his friend's marriage for which he needs to purchase new clothes. He purchased 4 shirts and 2 trousers and paid Rs. 2400. If number of shirts he purchased is 'x' and number of trousers he purchased is 'y' then</p> <p>(a) Represent the above equation as linear equation in two variables.</p> <p>(b) If cost of one trouser is Rs. 700, then find the cost of one shirt.</p> <p>(c) How many number of solutions a linear equation in two variables have?</p> <p style="text-align: center;">OR</p> <p>Write <math>y = 3</math> as a linear equation in two variables in its standard form.</p>					