

Worksheet for Dhyan**MCQ:**

1. If $\sqrt{2x+5} = 3$, what is the value of x ?
 - a) 2
 - b) 4
 - c) -2
 - d) 0
2. The distance between the points $A(2,-3)$ and $B(-4,1)$ is:
 - a) 6
 - b) $5\sqrt{2}$
 - c) $2\sqrt{3}$
 - d) 10
3. If two angles of a triangle are 45° and 60° , what is the third angle?
 - a) 60°
 - b) 75°
 - c) 85°
 - d) 90°
4. The area of a triangle with sides 13 cm, 14 cm, and 15 cm is:
 - a) 84 cm^2
 - b) 90 cm^2
 - c) 84.5 cm^2
 - d) 95 cm^2
5. The perpendicular drawn from the center of a circle to a chord divides the chord into two equal halves. If the radius of the circle is 10 cm and the chord length is 16 cm, how far is the chord from the center?
 - a) 6 cm
 - b) 8 cm
 - c) 4 cm
 - d) 5 cm

True or False:

1. If the sum of two sides of a triangle is equal to the third side, the triangle is degenerate (i.e., forms a straight line).
2. Two triangles with equal areas must be congruent.
3. The value of $\sqrt{25.6}$ lies between 5 and 6.

Fill in the Blanks:

1. The x-coordinate of a point is called its _____.
2. The sum of the angles in a triangle is _____ degrees.
3. The semi-perimeter of a triangle with sides 5 cm, 6 cm, and 7 cm is _____ cm.

Short Answers:

1. Represent $\sqrt{3}$ on a number line.
2. Define vertically opposite angles.
3. Plot the point $(4, -2)$ on the Cartesian plane.
4. Calculate the area of a triangle with sides 7 cm, 8 cm, and 9 cm using Heron's formula.