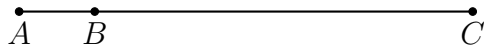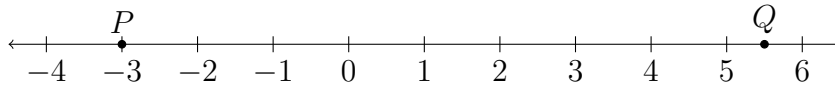**1.7 Exam: Spicy problems for early finishers**

1. Given $\overline{ABC}$, $AB = 4$, and $AC = 25$.
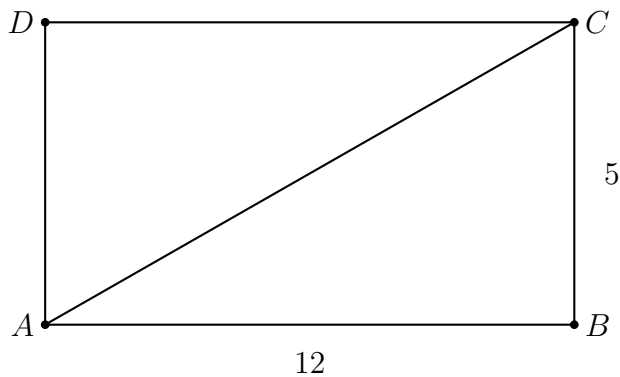
   Find BC.

2. Given $\overleftrightarrow{PQ}$ as shown on the number line, with $P = -3$ and $Q = 5.5$.
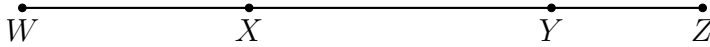

   What is the exact distance on the number line between the points P and Q?

3. Given the rectangle $ABCD$ shown below, with $AB = 12$ and $BC = 5$. The diagonal $\overline{AC}$ is drawn to create two triangles. Find the area of the lower triangle, $\triangle ABC$.
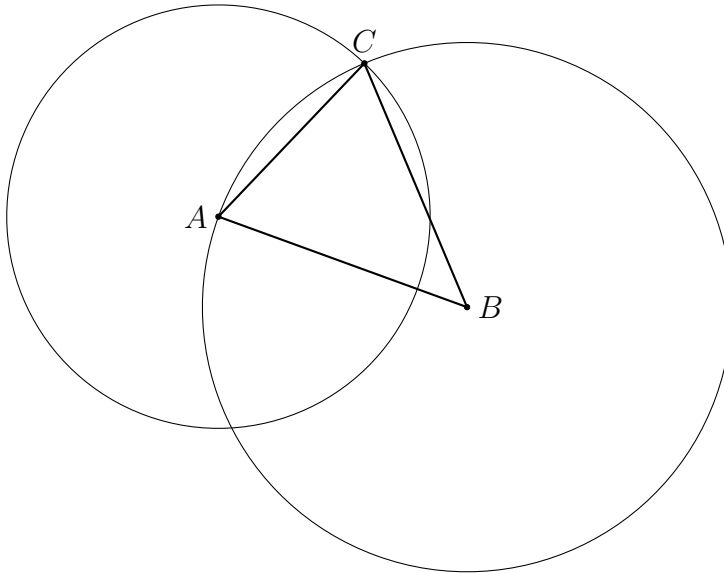

4. Given $\overline{WXYZ}$, $WX = 3\frac{1}{2}$, $XY = 4\frac{3}{4}$, and $YZ = 1\frac{1}{4}$.

   Find WZ.

5. A student constructs a triangle with a given side, $\overline{AB}$ as shown below. Is $\triangle ABC$ equilateral? Justify your answer by explaining what was done incorrectly and how it should have been done.

6. In the following two problems, solve for the value of x by factoring.

   (a) $x^2 + 6x = -5$ (b) $x^2 = x + 12$