## **Possible Solutions**

The coordinates of the vertices of the triangle shown are A(-6, 2), B(6, 2), C(6, -3).



What is the length of segment *AC* in units?

- Count the distance from A to B which is 12.
- Then count the distance from B to C which is 5.
- Use these two lengths and the Pythagorean Theorem to find the distance from A to C as shown below.

$$5^{2} + 12^{2} = c^{2}$$
$$25 + 144 = c^{2}$$
$$169 = c^{2}$$
$$\sqrt{169} = \sqrt{c^{2}}$$
$$c = 13$$

The solution is 13 units.