

SMART START

A square has an area of 144 in^2 . What is the length, to the nearest inch, of the diagonal?

- 1
- ☐ 15 inches
 - ☐ 16 inches
 - ☐ 17 inches
 - ☐ 18 inches

2 Brianna starts from home and walks 6 km west. She then takes a left and walks 8 km south.

3 Using the *shortest* distance between her home and current location, how far is Brianna from her home in the scenario described?

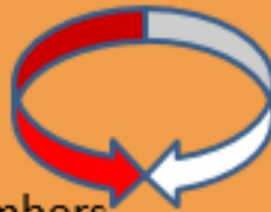
- ☐ $\sqrt{2} \text{ km}$
- ☐ $2\sqrt{7} \text{ km}$
- ☐ 10 km
- ☐ 14 km

What to do with the x and y in the ordered pairs....

180° Rotations (CW or CCW)

Steps:

1. NO SWITCH
2. Change Signs of both numbers



Starts as $(-3, 2)$...


No switch... $(-3, 2)$

Change Signs... $(3, -2)$ THIS IS YOUR ANSWER!!


HINTS for Remembering

90 ° CW and **90 ° CCW**

- **90 ° CW** ... Switch , Change the sign of second number (*moving to the right, so you change the number on the right*)


$$(x, y) \rightarrow (y, -x)$$

- **90 ° CCW** Switch, Change the sign of the first number (*moving to the left, so you change the number on the left*)


$$(x, y) \rightarrow (-y, x)$$