SMART START

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

- 15 inches
- 16 inches
- 17 inches
- 18 inches

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

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

- \(\sqrt{2}\)km
- \(2\sqrt{7}\)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 $90 \, ^\circ \, CW$ and $90 \, ^\circ \, CCW$

- $90 \, ^\circ \, CW$ ... Switch, Change the sign of second number (moving to the right, so you change the number on the right)
  
  $$(x, y) \rightarrow (y, -x)$$

- $90 \, ^\circ \, CCW$ ... Switch, Change the sign of the first number (moving to the left, so you change the number on the left)
  
  $$(x, y) \rightarrow (-y, x)$$