

Problem of the week  
**Due no later than**  
Friday January 31, 2020

All work must be shown for credit

Slope Formula:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Distance Formula:

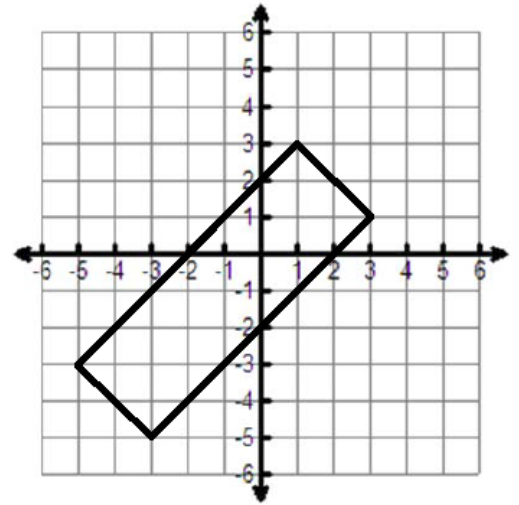
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$\text{Midpoint} = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Given the following coordinates prove the figure is a rectangle

Q (-5, -3) R (1, 3) S (3, 1) T (-3, -5)

1. Prove that all angles are right angles



2. Prove: Opposite sides congruent OR diagonals congruent