Problem of the Day

Full Name:_____**Block:**_____

Geometry: April 29th

Topic: Proving Rhombus and Squares

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

MIDPOINT FORMULA: $(x_m, y_m) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

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

Quadrilateral NORA has vertices N(0, 0), O(4, 3), R(7, -1), and A(3, -4). Using Coordinate Geometry prove that the Quadrilateral is a Square?

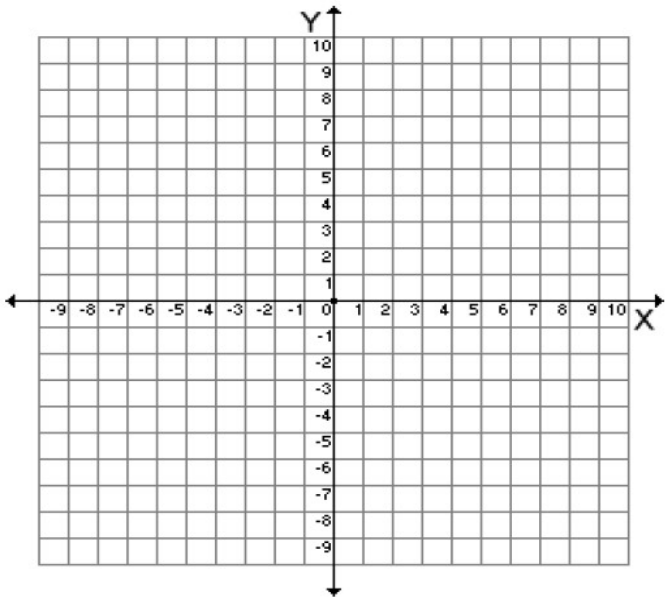
Find the **length** of each side.

NO = _____

OR = _____

RA = _____

NA = _____



- What conclusions can you make about the relationship of the sides?

Find the length of the diagonals .

NR=_____

OA = _____

- What conclusions can you make?

Based on my answers above, I have proven this shape to be a _____ because…