

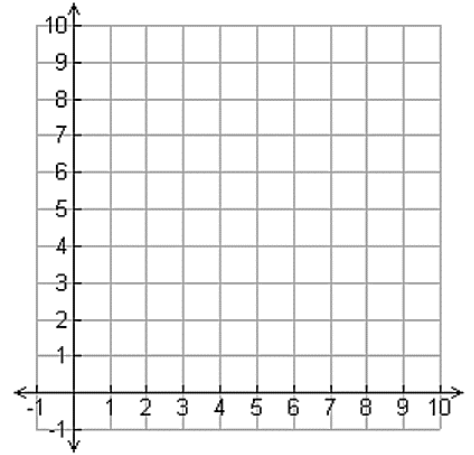
Coordinate proof of a kite

Name _____

Use Coordinate Geometry to prove that quadrilateral $ABCD$ is a kite given the vertices $A(0, 0)$, $B(1, 5)$, $C(8, 8)$ and $D(5, 1)$.

Show that both pairs of consecutive sides are congruent and distinct.

Find the lengths of the sides.



Distance Formula $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ or Pythagorean Theorem $a^2 + b^2 = c^2$

$AB =$

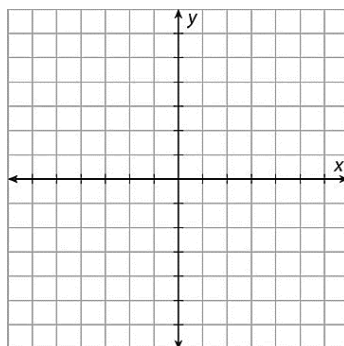
$CD =$

$BC =$

$DA =$

Explain why $ABCD$ is a kite:

1. Prove that quadrilateral $A(-2, 2)$ $B(4, -2)$ $C(4, -4)$ $D(2, -4)$ is a kite.



I know $ABCD$ is a kite because _____

_____.

I know this since _____.