

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

$$AB = \frac{-2-2}{5-2} = \frac{-4}{3}$$

$$BC = \frac{1-(-2)}{9-5} = \frac{3}{4}$$

$$CD = \frac{5-1}{6-9} = \frac{4}{-3}$$

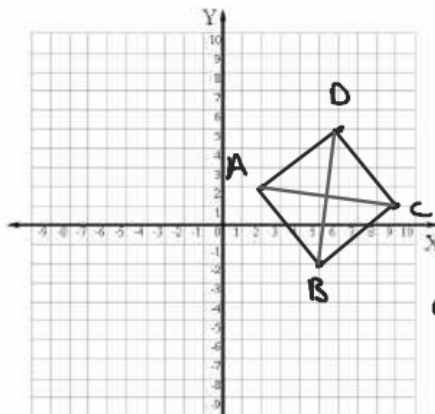
$$AD = \frac{5-2}{6-2} = \frac{3}{4}$$

$$BD = \sqrt{(5+2)^2 + (6-5)^2}$$

$$= \sqrt{7^2 + 1^2}$$

$$= \sqrt{50}$$

Determine if the quadrilateral is a square.  
A(2, 2), B(5, -2), C(9, 1), D(6, 5)



$$AC = \sqrt{(1-2)^2 + (9-2)^2}$$

$$= \sqrt{(-1)^2 + (7)^2}$$

$$= \sqrt{50}$$

$$AB = \sqrt{(-2-2)^2 + (5-2)^2}$$

$$= \sqrt{(-4)^2 + (3)^2} = \sqrt{16+9} = \sqrt{25}$$

$$= 5$$

$$BC = \sqrt{(9-5)^2 + (1-(-2))^2}$$

$$= \sqrt{4^2 + 3^2}$$

$$= \sqrt{16+9} = \sqrt{25} = 5$$

$$CD = \sqrt{(6-9)^2 + (5-1)^2}$$

$$= \sqrt{(-3)^2 + 4^2}$$

$$= \sqrt{9+16} = \sqrt{25} = 5$$

$$AD = \sqrt{(6-2)^2 + (5-2)^2}$$

$$= \sqrt{4^2 + 3^2} = \sqrt{16+9}$$

$$= \sqrt{25} = 5$$

Determine if the quadrilateral is a rectangle.  
A(-5, 6), B(-1, 8), C(3, 0), D(-1, -2)

