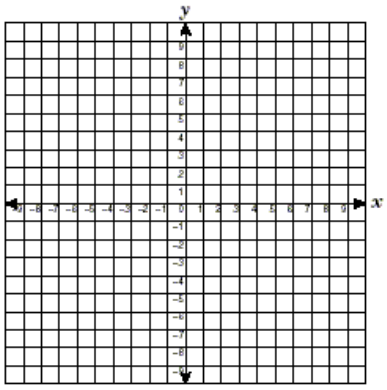
Independent Practice

Find the midpoint of the following sets of point. Graph each set of points and midpoint to check your answers

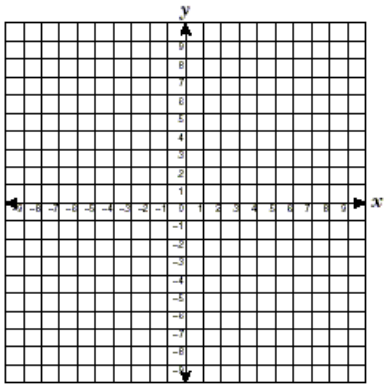
a. $A(-3, 4), B(-3,8)$

$M = (-3, 6)$



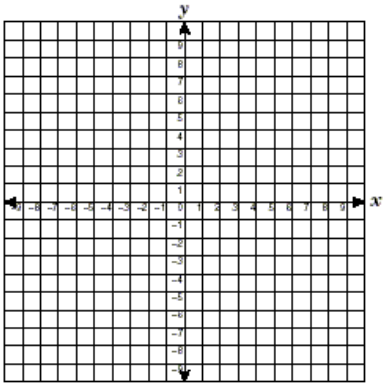
b. $C(-1,-3), D(5,-3)$

$M = (2, -3)$



c. $E(3,-5), F(7,9)$

$M = (5, 2)$



Find the distance between the following sets of points. Round answers to the nearest tenth.

1. (3,2) and (-4,2)

$d = 7$

2. (-3,-1) and (-3,-5)

$d = 4$

Find the length of the segment jointing the following sets of points. Round answers to the nearest tenth.

3. (4,-5) and (1,-1)

$d = 5$

4. (5,4) and (-3,4)

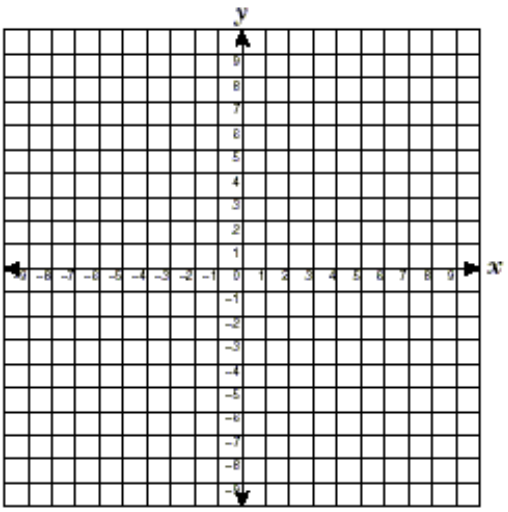
$d = 8$

Applications of Midpoint and Distance Formulas

The endpoints of the diameter AB are A(-8,-4) and B(3,6).

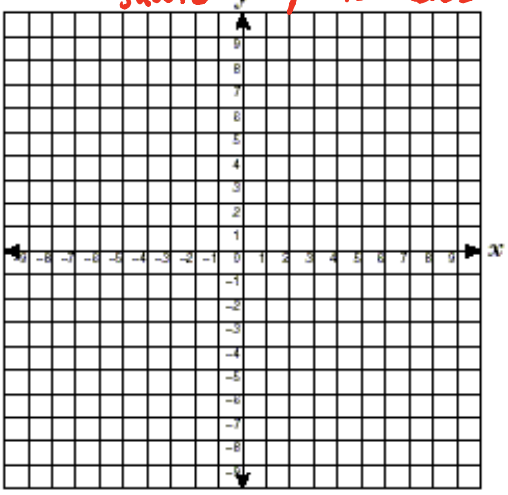
1. Find the center of the circle

2. Find the radius of the circle



Prove that ABC, with points A(4,-1), B(5,6), and C(1,3) is a ~~right~~ triangle by showing that two of its side lengths are congruent.

should say isosceles



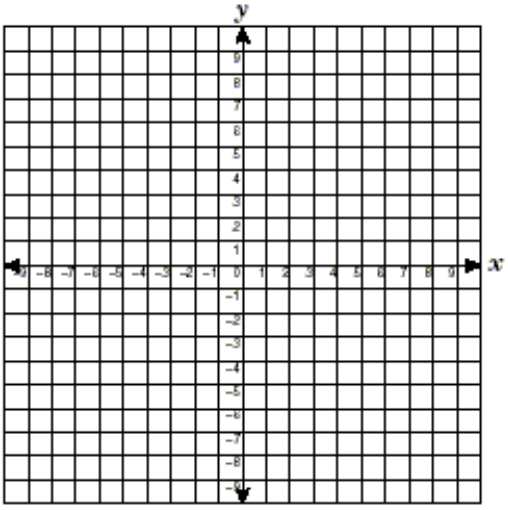
$\overline{AC} = 5$

$\overline{BC} = 5$

$\overline{AC} \cong \overline{BC}$, therefore

ΔABC is isosceles Δ

Show that the diagonals of the rectangle A(0,5) B(3,4) C(0,-5) D(-3,-4) are congruent



$\overline{AC} = 10$

$\overline{BD} = 10$

$\overline{AC} \cong \overline{BD}$