13.1

Cooridinate Geometry

Distance Formula:

Example: Find the distance between (-4,2) (2,-1)

The equation_____

_____

_____

Example: Write the equation of a circle if the center is (2,-1) and it has a radius of 4.

Find the distance between the following
  sets of points.

a)   (-1,2) (7,5)

b)   (-4, -1) (2,-3)

c)   (-3,3) (3,-3)

Find the center and the length of the radius of the circle with the equation of:

Find the equation of the circle with a center at (j, -1) and a radius = $3\sqrt{2}$

13.2 and 13.3

Slope of a line

$Slope =$ _____

or

_____

Slope can either be:

- _____

- _____

- _____

- _____

Parallel: _____

_____

- _____

_____

_____

Perpendicular: _____

_____

_____

_____

Refresher:

The equation of a line is:

Find the slopes of the lines containing these points.

a)   (3,-1) (5,4)

b)   (-2,5) (7,2)

c)   (3,3) (3,7)

Tell whether the lines are parallel, perpendicular or intersecting given the there slopes.

a) m=3/4 and m=12/16

b) m= -3/4 and m=4/3

c) m= 3 and m= -3

Given Points E(-4,1) F(2,3) G(4,9) and H(-2,7). Prove the shape is a rhombus.

13.5

Midpoint Formula

Midpoint Formula: _____

_____

_____

- _____

_____

_____

Find the Midpoint of the segment that joins (-11,3) and (8,-7)

Given the points A(2,1) and B(8,5) show that P(3,6) is on the perpendicular bisector of AB.

- First find the MP of AB

- Then find the slope of the MP and P.

- Compare it to the slope of AB

Find the length, slope and MP of PQ:

a) P(-3,4) Q(7,8)

b) P(-7,11) Q(1,-4)