

Precalculus Worksheet #1 Chapter 2 page 1 \_\_\_\_\_

In each of the following problems you are given the coordinates of point P and point Q. Find PQ. Express any irrational answers rounded to the nearest hundredth.

1. P(-2, 1) Q(6, 7) PQ: \_\_\_\_\_

2. P(-4, -2) Q(-4, -8) PQ: \_\_\_\_\_

3. P(-1.7, 2.6) Q(-0.2, -1) PQ: \_\_\_\_\_

4. P(4, 7) Q(-3, 11) PQ: \_\_\_\_\_

In each of the following problems you are given the coordinates of point P and point Q. Find the coordinates of point M, the midpoint of segment PQ.

5. P(6, 8) Q(-4, 3)

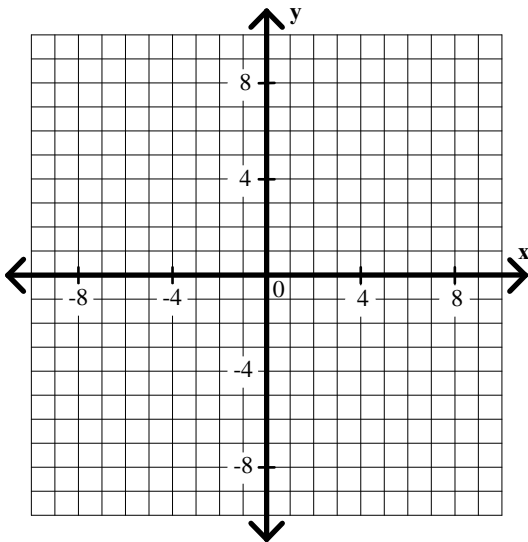
6. P(-6.3, 5.2) Q(-2.5, 5.2)

M: ( \_\_\_\_\_, \_\_\_\_\_ )

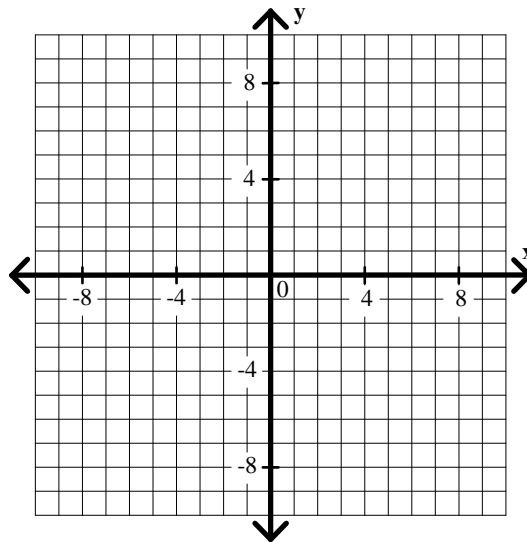
M: ( \_\_\_\_\_, \_\_\_\_\_ )

Sketch a graph of each of the following equations.

7.  $y = \sqrt{x}$



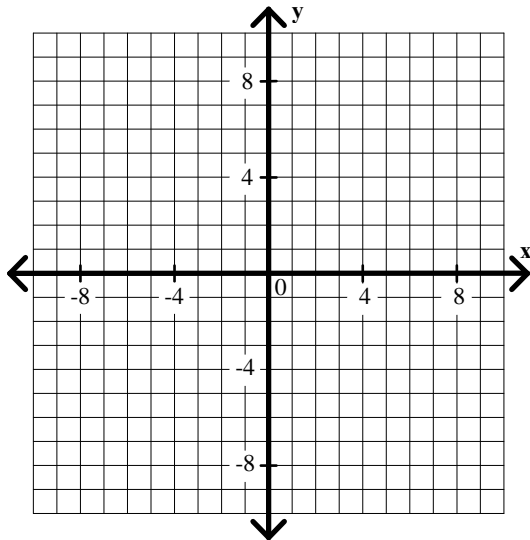
8.  $y = |x^2 - 9|$



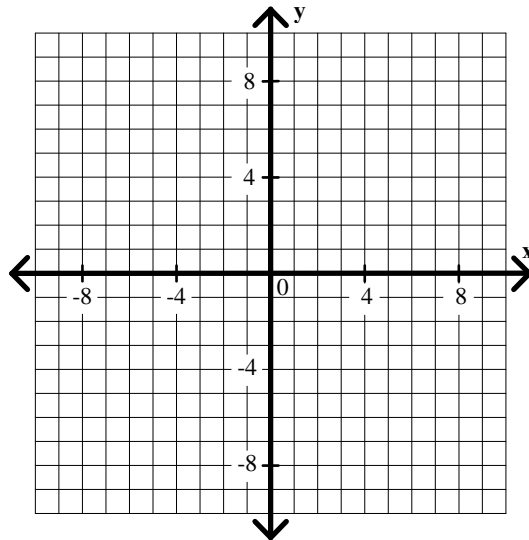
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Sketch a graph of each of the following equations.

9.  $4x - 3y = 12$



10.  $x^2 + y^2 + 6x - 4y + 4 = 0$



Solve each of the following problems.

11. Find the value(s) of  $y$  so that the distance between  $(3, y)$  and  $(-6, 6)$  is 15.

12. Write the general form equation of the circle with a radius of 4 and center at  $(3, -4)$ .