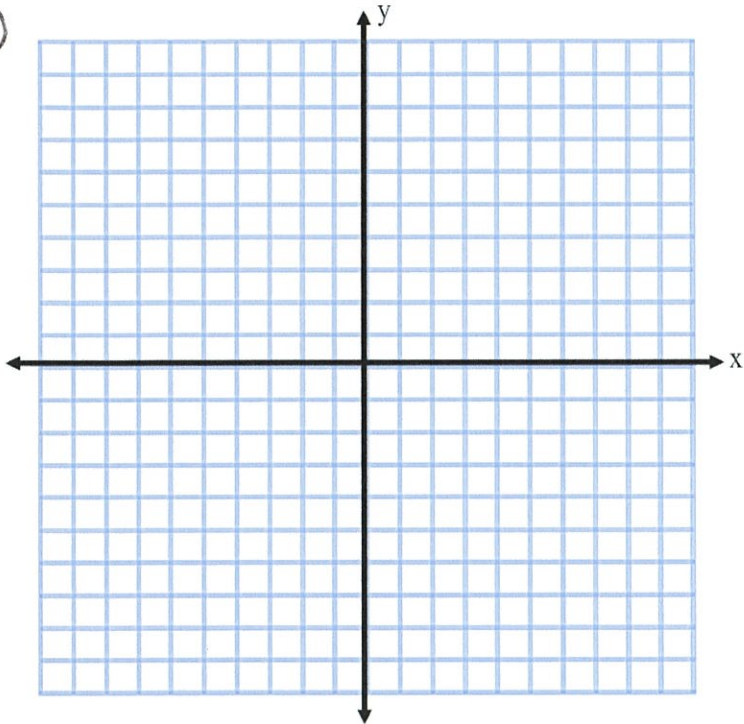


Name _____
Mrs. Roumbos

Date _____
8R Period _____

Pythagorean Theorem and Distance on the Coordinate Plane

①



a) Plot the points below and connect them to form right triangle ABC.

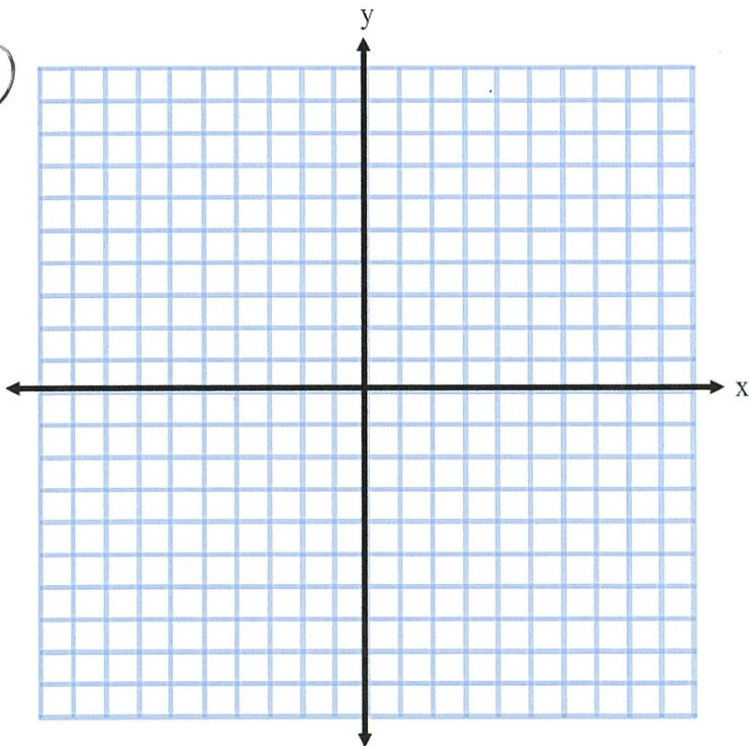
A(-3,10) B(5, 10) C(5, -5)

b) Count the unit lengths of sides AB and BC. Label these lengths on your diagram.

c) Use the Pythagorean Theorem to find the length of the hypotenuse AC.

Show your work here:

②



a) Plot the points below and connect them to form right triangle MAP.

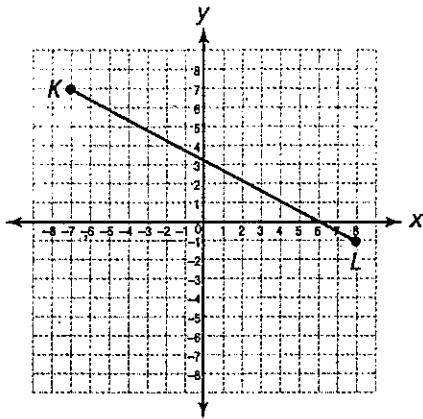
M(0,4)
A(3,4)
P(0,0)

b) Find the length of the hypotenuse AP.

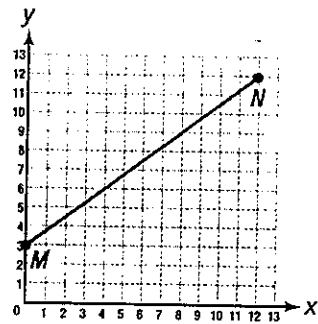
Show your work here:

#3 + #4: Determine the length of each line segment. Show your work.

3

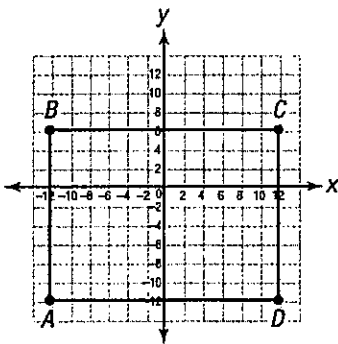


4



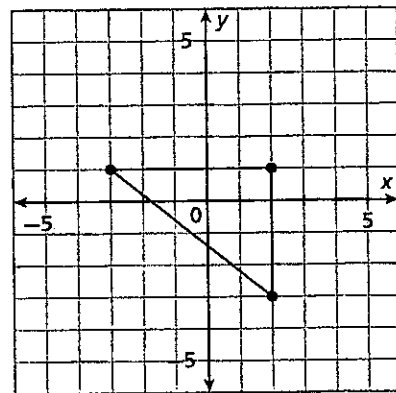
5

DRAW Draw a diagonal for rectangle $ABCD$ and calculate its length. Is it possible to draw a different diagonal for this rectangle that has a different length? Explain.



6

Approximate the length of the hypotenuse to the nearest tenth without using a calculator.

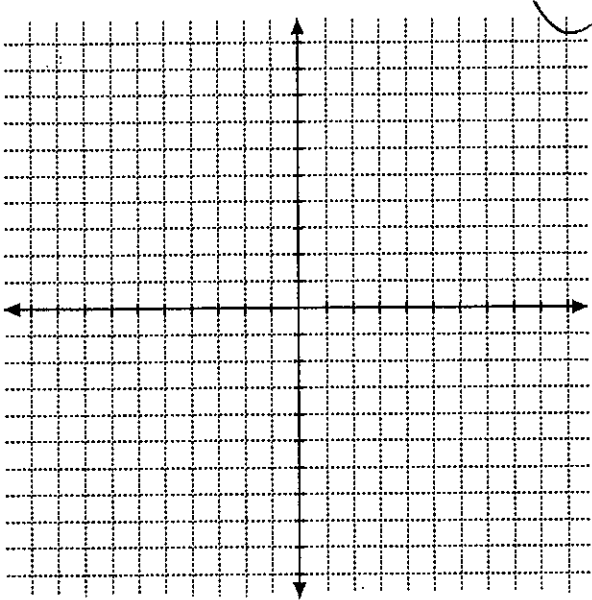


#3 7-10

**Plot the points on the coordinate plane.
Then calculate the distance between the two points.
Round your answer to the nearest tenth. (where necessary)
Show your work.**

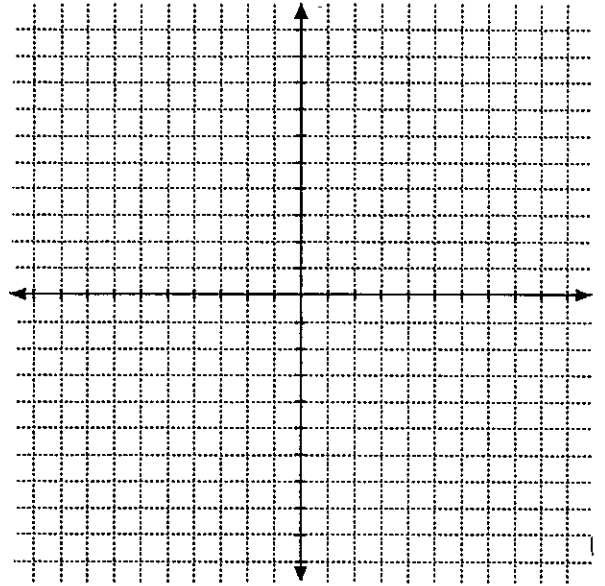
7

Find, to the nearest tenth, the distance between points $(1,3)$ and $(-2,0)$.



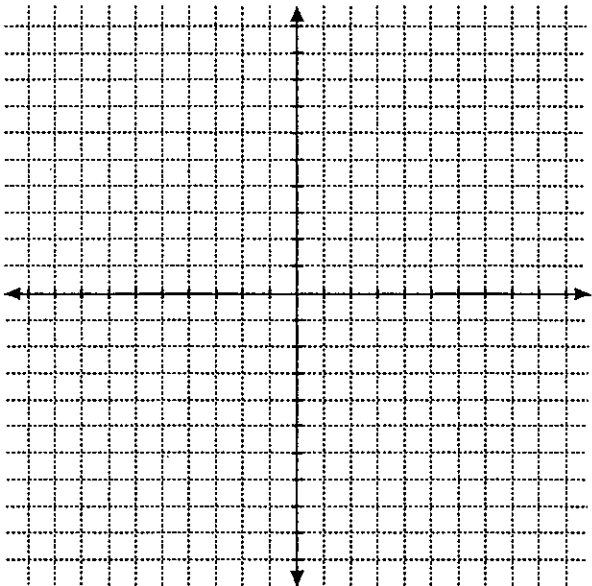
8

Find, to the nearest tenth, the distance between two points whose coordinates are $(-2,5)$ and $(3,-4)$.



9

Find the distance between the points whose coordinates are $(2,7)$ and $(8,-1)$.



10

If the endpoints of the diameter of a circle are $(3,1)$ and $(6,5)$, find the length of the diameter.

