

LEVEL: EMERGING

1) State the distance formula:

$$d =$$

2) State the midpoint formula.

$$\text{midpoint} = (\quad , \quad)$$

Directions: Find the exact lengths of the following line segments with the given endpoints.

3) (-8,7) and (5,1)

4) (-11, 17) and (-6,5)

Directions: Find the midpoint between the given points.

5) (-8,5) and (2,7)

6) (6,-1) and (-3,-13)

Directions: Given the midpoint and one of the endpoints, find the other endpoint.

7) Endpoint (2, -4) and Midpoint (-6, 5)

8) Endpoint (-10, -1) and Midpoint (5, 1)

LEVEL: PROFICIENT

Directions: Find the exact length and the midpoint of the segment below.

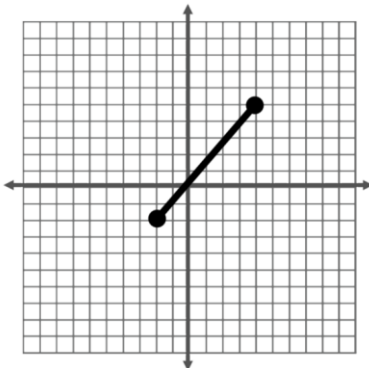
9)

a)

Length

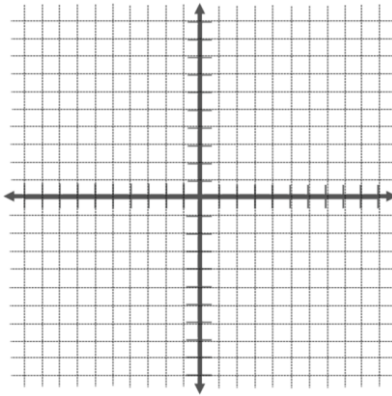
b)

Midpoint

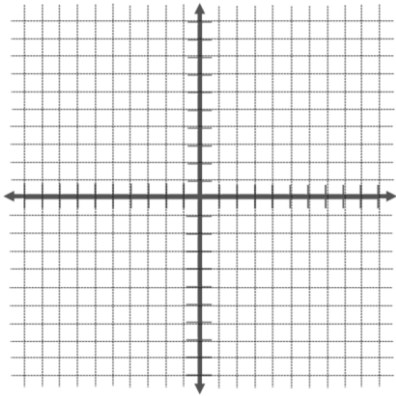


LEVEL: MASTERY

10) Draw a line segment with a midpoint at (3,-2). Label your endpoints.

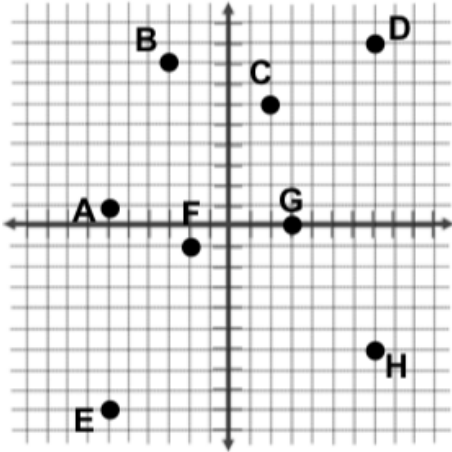


11) Draw a line segment parallel to the y-axis with a midpoint at (-2,-2).



Directions: Find the exact lengths of the following line segments. Justify by showing algebraic work!

12)



a) $\overline{AB} =$

b) $\overline{CD} =$

c) $\overline{EF} =$

d) $\overline{GH} =$

e) Which segment is the longest?

13) The diagram shows the positions of three players during part of a water polo match. Player A throws the ball to Player B, who then throws it to Player C. If the ball travels through the air at an average of 15.5 m/s, how long will it take for the ball to move from Player A to Player B to Player C? Round your answer to the nearest hundredth of a second.

