Geometry   Mathematician: _____
Unit 1 Geometry Essentials   Period:_____
1.2b Day 2: Midpoint and Distance Formula

LEVEL: EMERGING

Directions: Find the midpoint and length of each line segment. Round your answers to 2 decimal places.

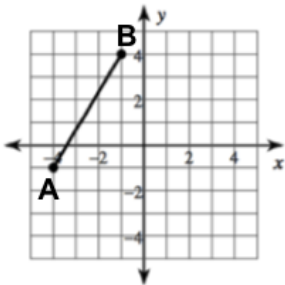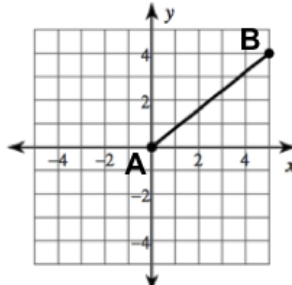| 1) (2,-4) and (-6,5)	a) **Midpoint**	b) **Length**
2) (-10,-1) and (5,1)	a) **Midpoint**	b) **Length**
3) (-8,4) and (-3,12)	a) **Midpoint**	b) **Length**

LEVEL: PROFICIENT

Directions: Find the length of line segment $\overline{AB}$. Round your answers to 2 decimal places.
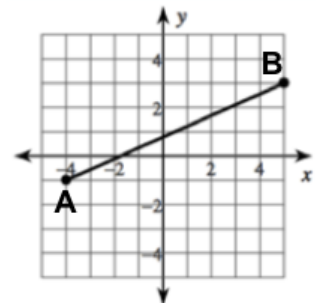
4)

5)

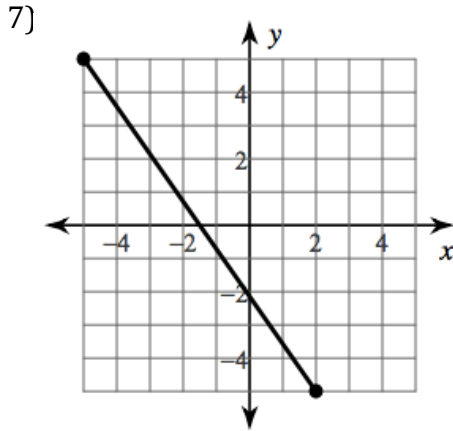
6)

$m\overline{AB} = $ _____ $m\overline{AB} = $ _____ $m\overline{AB} = $ _____

Directions: Find the midpoints of the given line segments. Then find the sum of the x-coordinate and the y-coordinate.
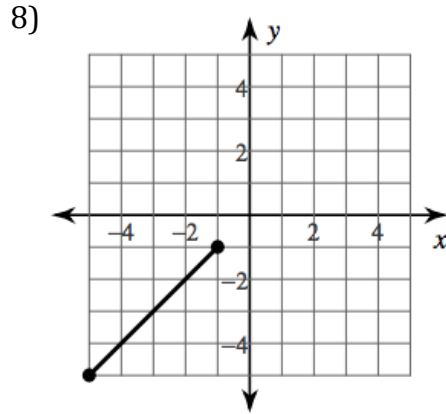
7)

Midpoint: _____
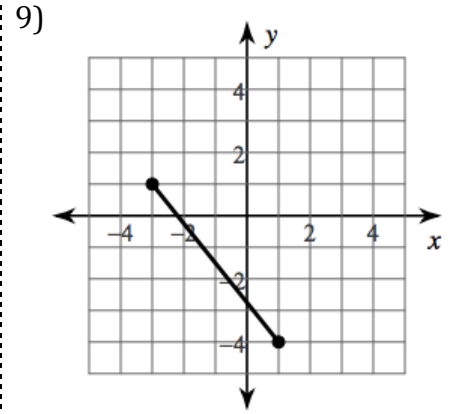
x-coordinate : _____

y-coordinate: _____

Sum: _____

8)

Midpoint: _____

x-coordinate : _____

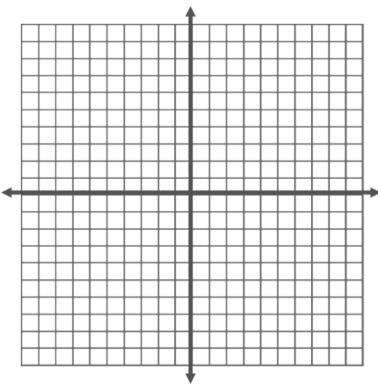y-coordinate: _____

Sum: _____

9)

Midpoint: _____

x-coordinate : _____

y-coordinate: _____

Sum: _____

LEVEL: MASTERY

10) Draw a line segment that has a midpoint at (-2,1) and one endpoint at (3,3). Find the other endpoint.

Endpoint: _____

11) Error analysis: Michelle was told to find the midpoint between the two given points. Determine where she made the error in her work.

<u>Problem:</u>   Points – (-2,4) and (8,4)

Step 1: $\left(\frac{8+2}{2}, \frac{4-4}{2}\right)$

Step 2: $\left(\frac{10}{2}, \frac{1}{2}\right)$

Step 3: $Midpoint = \left(5, \frac{1}{2}\right)$

a) Error made in (circle one):

        Step 1   Step 2   Step 3

b) Describe the error:

LEVEL: HONORS

Directions:

Unit 1.2B Day 2 Worksheet Answers

1.
   a. (-2 , 0.5)
   b. 12.04
2.
   a. (-2.5 , 0)
   b. 15.13

3.
   a. (-5.5 , 8)
   b. 9.43
4. $m\overline{AB} = 5.83$
5. $m\overline{AB} = 6.40$
6. $m\overline{AB} = 9.85$
7. SUM = -1.5
8. SUM = -6
9. SUM = -2.5
10.   (-7,-1)
11.
   a. Step 1
   b. Answers may vary