Name:_____ Hour: _____ Date: _____

NOTES: Section 12.7/8 – Distance and Midpoint Formula

Goals: #1 - I can find the distance between two points on a coordinate plane.

#2 - I can find the midpoint of a line segment in a coordinate plane.

Homework: Section 12.7/8 Worksheet

Warm Up:

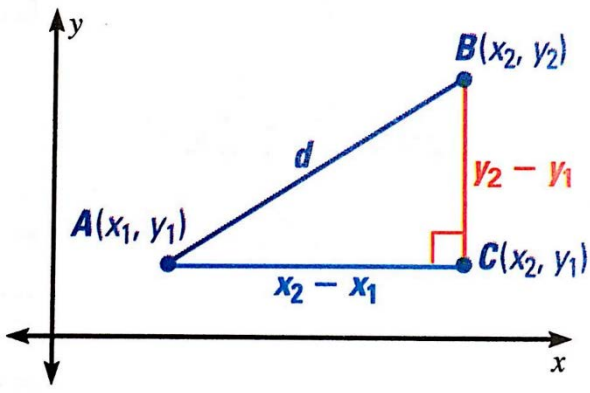
1. Let a and b represent the lengths of the legs of a right triangle and let c represent the length of the hypotenuse. Find the unknown length.
   a. $a = 12, c = 25$

2. Determine whether the given lengths are sides of a right triangle.
   a. $8, 12, 17$

Notes:

We can use the _____ to find the distance between _____ points in a coordinate plane.

- _____:



Name:_____ Hour: _____ Date: _____

Example #1: Find the distance between the two points.

1. $(1, 4), (-2, 3)$
2. $(-4, 2), (-1, 3)$

You practice: Find the distance between the two points.

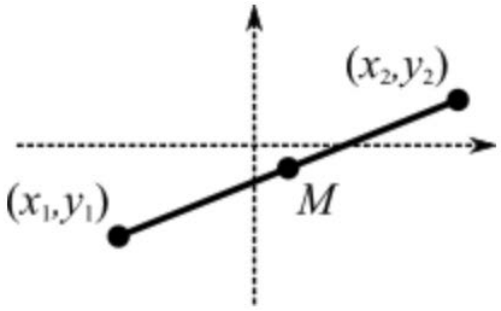
1. $(2, 5), (0, 4)$
2. $(-3, 2), (2, -2)$

Name:_____ Hour: _____ Date: _____

Notes:

We can use the _____ to find the _____ of a line segment in a coordinate plane.

- _____:



Example #2: Find the midpoint of the line segment with the given endpoints.

1. $(-2, 3), (4, 1)$
2. $(-3, -3), (6, 7)$

You practice: Find the midpoint of the line segment with the given endpoints.

1. $(-9, 17), (5, -7)$
2. $(-4, 0), (-1, -5)$