Name_____   Date_____

Geometry CC   Mixed Review

Distance and Midpoint

1. Find the midpoint of the segment with the following endpoints:

    a. $(5,8)$ and $(2,6)$ b. $(-8, 3)$ and $(4, -1)$

2. Find the distance between the given points:

    a. $(4, -5)$ and $(-2, 3)$ b. $(5, -3)$ and $(1, 7)$

3. The given points are the endpoints of a diameter. Find the center and radius.

    $(3,-2)$ and $(7,4)$

Midpoint and Distance Formula Worksheet

Find the coordinates of the midpoint of the segment joining the given points.

1. (0, 2) and (6, 4)

2. (-2, 2) and (6, 4)

3. (6,-7) and (-6, 3)

4. (-11, 3) and (8,-7)

5. (2.3, 3.7) and (1.5, -2.9)

6. (x, 2) and (x+4, -4)

Find the distance between the two points.

7. (-4, 2) and (2,-1)

8. (-2, -3) and (-2, 4)

9. (3, 2) and (5, -2)

10. (5, -7) and (8,-2)

For the given endpoints of a diameter, find

a. the center of the circle   **b. the radius of the circle**

11. (-8, 6) and (0, 0)

12. (4,-9) and (-2, -9)

13. (-5, 7) and (4, -2)
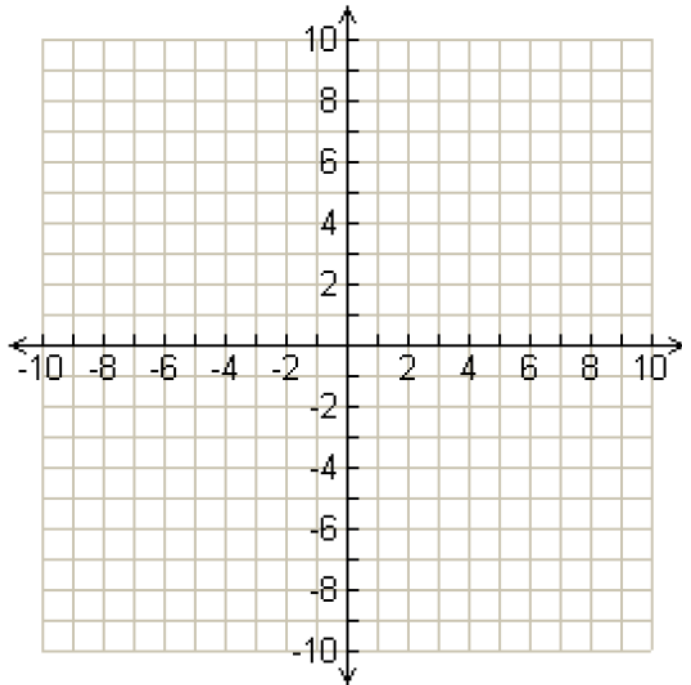
14. (-2, -3) and (4, 5)

15. (3, 4) and (2, 1)

Triangle ABC has coordinates A (3, 9), B (5,1) and C (9, 5). **D is the midpoint of AB** and **E is the midpoint of AC**.

a) Graph the points A, B, and C (make sure you label them). Find and plot the coordinates of points D and E. Show all work.

D =

E =

b) Find the **length of DE**. Show all work.

Point M is the midpoint of $\overline{AC}$, find the coordinates of the missing endpoint when you are given one endpoint and the coordinates of the midpoint.

16. M(0, 5.5) and C(-3, 6)   17. M(-1, 5) and A(-4, 3)   18. M(4, 1) and A(5, -1)

19. Are the following set of points collinear? Explain.
   a) $\{(2, 8), (12, 6), (1, -5)\}$ b) $\{(1, 4), (3, 12), (-2, -8)\}$