

Geometry – Unit 1 Practice
Midpoint and Distance Formulas

8.G.B.8, G.CO.A.1, G.GPE.B.4, G.GPE.B.6

Name: _____!

Date: _____ Pd: _____

The midpoint of the segment joining two points can be found using the midpoint formula:

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

The distance between two points can be found using the distance formula:

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

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)