Coordinate Geometry Name_____ ID: 1

Midpoint and Distance

Date_____ Period____

Find the midpoint of the line segment with the given endpoints; use $M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$.

1) $(-9, -5)$, $(0, -2)$

$\left(-4\frac{1}{2}, -3\frac{1}{2}\right)$

2) $(-4, -5)$, $(6, -9)$

$(1, -7)$

3) $(-8, 2)$, $(-8, 10)$

$(-8, 6)$

4) $(-6, 6)$, $(-8, -7)$

$\left(-7, -\frac{1}{2}\right)$

5) $(-6, -7)$, $(1, -10)$

$\left(-2\frac{1}{2}, -8\frac{1}{2}\right)$

6) $(5, -1)$, $(-3, -1)$

$(1, -1)$

7) $(-5, 5)$, $(-3, 0)$

$\left(-4, 2\frac{1}{2}\right)$

8) $(-8, 10)$, $(-3, -8)$

$\left(-5\frac{1}{2}, 1\right)$

9) $(10, 5)$, $(-1, -3)$

$\left(4\frac{1}{2}, 1\right)$

10) $(-1, -4)$, $(6, -6)$

$\left(2\frac{1}{2}, -5\right)$

Find the distance between each pair of points; use $D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$.

11) $(5, -3)$, $(-8, 3)$

14.318

12) $(2, -1)$, $(4, -4)$

3.606

13) $(6, -5)$, $(-3, -1)$

9.849

14) $(-3, -5)$, $(6, -7)$

9.22

15) $(7, 5)$, $(-4, -4)$

14.213

16) $(2, -8)$, $(0, -8)$

2

17) $(-4, 1)$, $(-4, -7)$

8

18) $(5, 7)$, $(-8, -3)$

16.401

19) $(-6, 1)$, $(-2, 8)$

8.062

20) $(2, 0)$, $(-2, 2)$

4.472