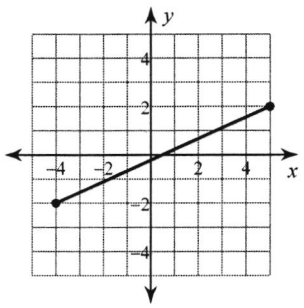
Secondary Math 2 Name_____

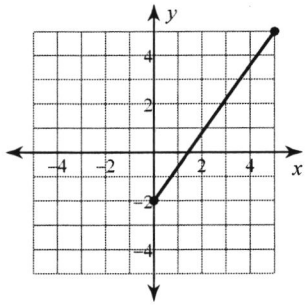
9.2: Midpoint and Distance & Parallelograms

Find the distance between each pair of points.

1)



2)



3) $(5, -6)$, $(2, -3)$

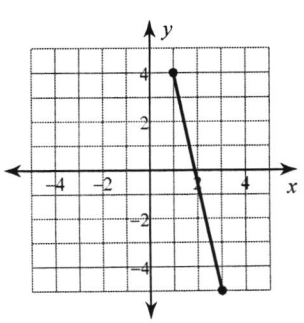
4) $(0, -7)$, $(-5, 1)$

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

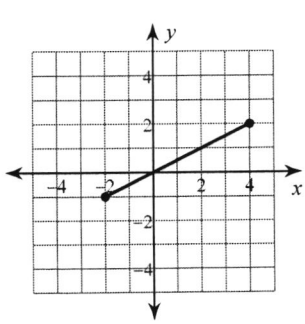
6) $(5, -5)$, $(-5, 3)$

Find the midpoint of each line segment.

7)



8)



Find the midpoint of the line segment with the given endpoints.

9) $(-7, -8)$, $(9, -10)$

10) $(4, 8)$, $(1, -10)$

11) $(7, -4)$, $(0, -8)$

12) $(-5, 4)$, $(10, 8)$

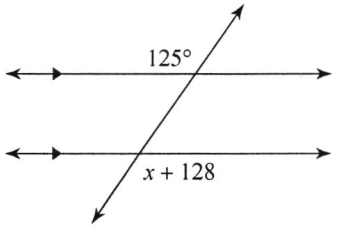
Find the other endpoint of the line segment with the given endpoint and midpoint.

13) Endpoint: $(2, -8)$, midpoint: $(-8, 4)$

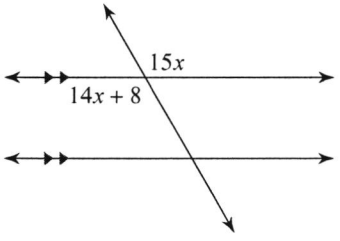
14) Endpoint: $(-4, -10)$, midpoint: $(-5, 0)$

Solve for x.

15)

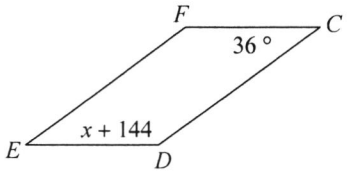


16)

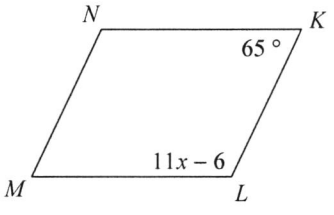


Solve for x. Each figure is a parallelogram.

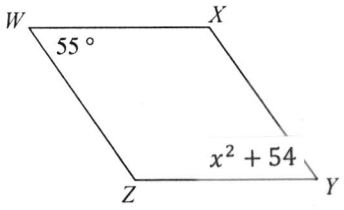
17)



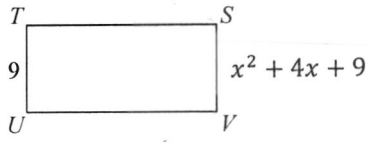
18)



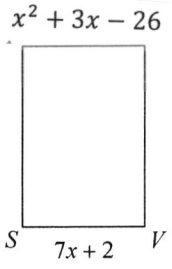
19)



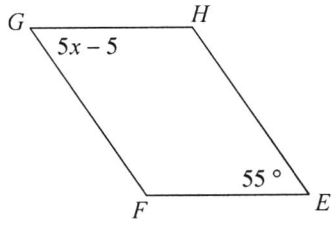
20)



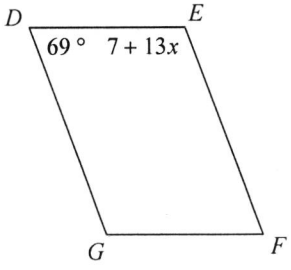
21)



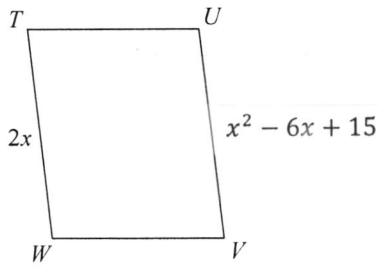
22)



23)



24)



25) Prove or disprove that the following are vertices of a parallelogram using distance. Show all work!

A(-1, 3), B(3, 4), C(5, 0), D(1, -1)

26) Prove or disprove that the following are vertices of a parallelogram using properties of parallel lines. Show all work!

A(-5, -4), B(-3, 2), C(0, 0), D(-2, -6)