

Name: \_\_\_\_\_ Period: \_\_\_\_\_

**Secondary 2 Honors**

**Number Systems and Lines Unit Standards**

**REVIEW**

Standard Name	Learning Goals	Review problems that demonstrate standard	Proficient (☑ when true)
Number systems	<i>I can categorize numbers as real, rational or irrational, whole, natural, and integers.</i>	1-6, 48	
Simplifying radicals	<i>I can rewrite (simplify) expressions with radicals (square root, cube root, etc.) using the properties of exponents.</i>	7-18	
Parallel lines with transversal Proofs	<i>I can prove that vertical angles, alternate interior/exterior, and corresponding angles are congruent. I can prove that consecutive interior/exterior angles are supplementary.</i>	20-26	
Line segment ratio	<i>I can find a portion of a distance between two points (midpoint, 1/3, 1/4, etc.)</i>	27-33, 46	
Classifying quadrilaterals Distance formula	<i>I can prove a parallelogram using slope, distance, or midpoint.</i>	34-41, 47	
Classifying quadrilaterals	<i>I can give the most specific name for a quadrilateral when given the coordinates for the vertices.</i>	42-44	

## Review

Period \_\_\_\_\_

**Name ALL the number systems to which each number belongs. Please use the following abbreviations: N-Natural Numbers, W-Whole Numbers, Z-Integers, Q-Rational Numbers, I-Irrational Numbers, R- Real Numbers**

1)  $\sqrt{35}$

2)  $\frac{12}{7}$

3)  $-7$

4)  $0$

5)  $201.09090909\dots$

6)  $5\pi$

**Simplify each radical expression using factor tree or multiplication method.**

7)  $\sqrt{24}$

8)  $\sqrt{64x^4}$

9)  $\sqrt[3]{40}$

10)  $\sqrt[3]{-27}$

11)  $5\sqrt{8}$

12)  $-2\sqrt[3]{8v^2}$

**Undo the following problems (like in 22 and 23) by rewriting with no coefficients.**

13)  $3\sqrt{x}$

14)  $4z\sqrt{2}$

**Simplify.**

15)  $4\sqrt{5} + 2\sqrt{5}$

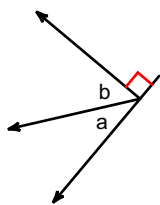
16)  $3\sqrt{8} - 2\sqrt{2}$

17)  $\sqrt{5} - 2\sqrt{20} + 4\sqrt{5}$

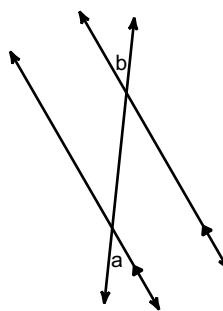
18)  $\sqrt{2}(\sqrt{5} + \sqrt{6})$

Name the relationship: linear pair, vertical, adjacent, alternate interior, alternate exterior, corresponding, or consecutive interior. AND state whether they are congruent, supplementary or complementary.

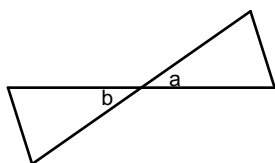
19)



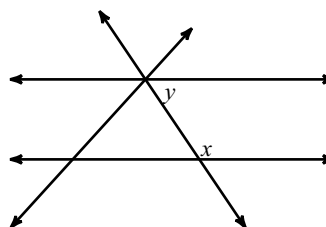
20)



21)

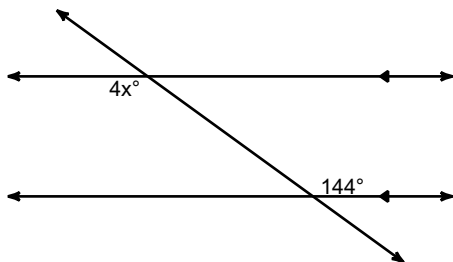


22)

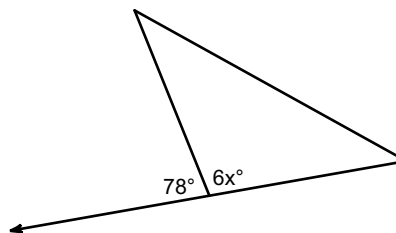


Find the value of x.

23)

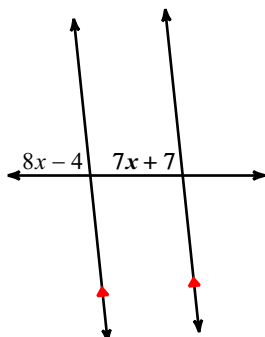


24)

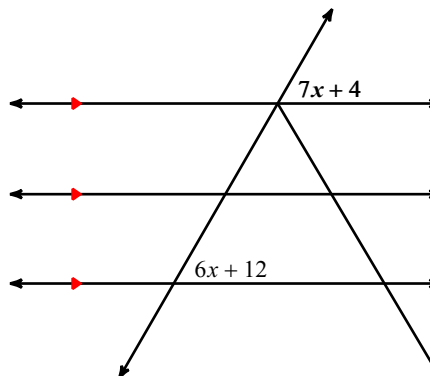


Name the angle relationship. Then find the measure of both angles indicated.

25)



26)



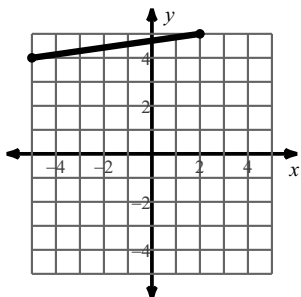
Find the midpoint of the line segment with the given endpoints.

27)  $(-7, 8), (1, 5)$

28)  $(-2, -1), (-8, 0)$

Find the midpoint of each line segment.

29)



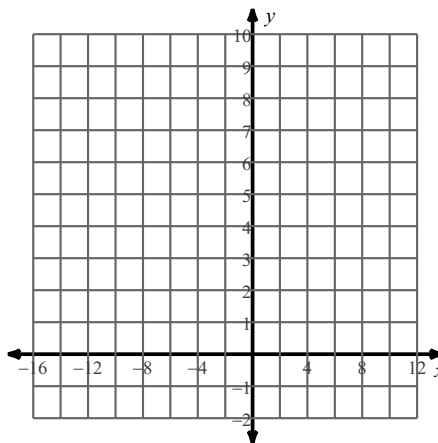
Find the other endpoint of the line segment with the given endpoint and midpoint.

30) Endpoint:  $(-1, 0)$ , midpoint:  $(2, -5)$

31) Endpoint:  $(3, 5)$ , midpoint:  $(3, -5)$

32) Determine the point that is  $\frac{1}{4}$  the distance from the endpoint  $(-6, -10)$  of the segment with endpoints  $(14, -2)$  and  $(-6, -10)$ . Find the answer ALGEBRAICALLY. Show your work.

33) Determine the point that is  $\frac{2}{3}$  the distance from the endpoint  $(12, 10)$  of the segment with endpoints  $(12, 10)$  and  $(-15, 1)$ . Find the answer GRAPHICALLY. Show your work.

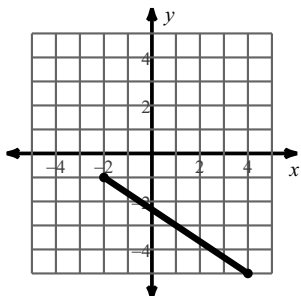


Find the distance between each pair of points.

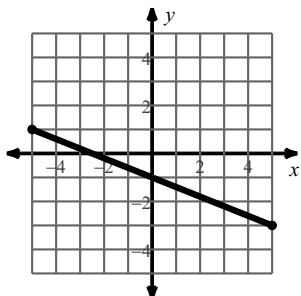
34)  $(6, 3), (4, -8)$

35)  $(4, 7), (1, 0)$

36)

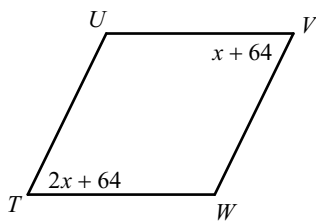


37)

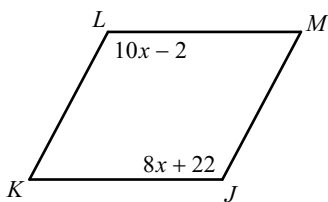


Find the measurement indicated in each parallelogram.

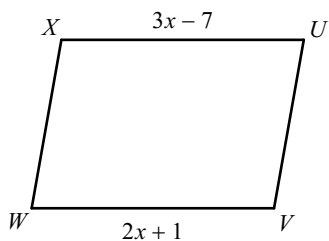
38) Find  $m\angle V$



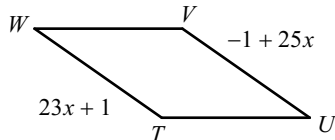
39) Find  $m\angle K$



40) Find  $VW$

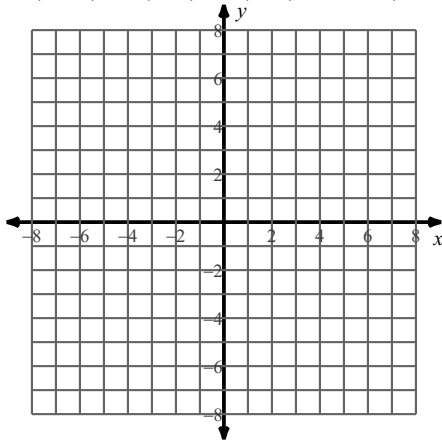


41) Find  $VU$

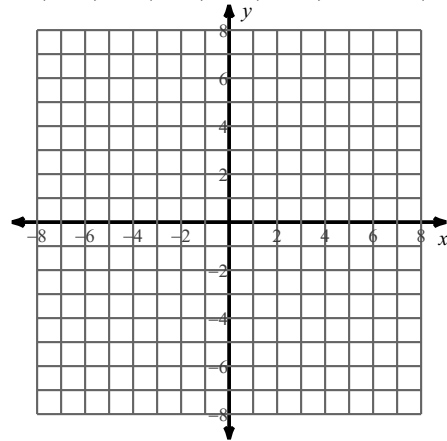


Make an informal coordinate proof that shows which of the following is the most specific way to classify each shape. (Quadrilateral, parrallelogram, rectangle, rhombus, square, kite, trapezoid, or isosceles trapezoid). Remember to organize and label your work, as this is still a proof! The important part of this is work!!!

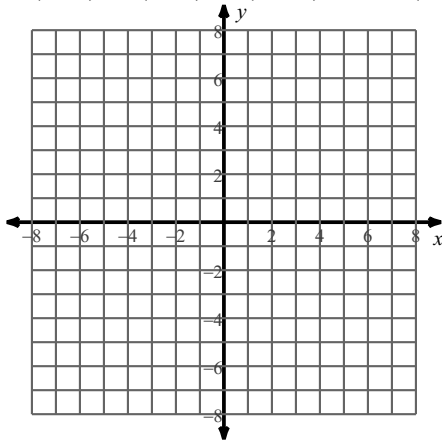
42) A(-4,4), B(2,8), C(3,4) and D(-3, 0).



43) A(1, 5), B(5, 2), C(3, -1) and D(-1, 2).



44) A(3, 3), B(8, 1), C(4, -9) and D(-1, -7).



45) When are all late, absent, and redo assignments due (Completed and Graded)?

46) What is the segment ratio formula?

47) What is the distance formula?