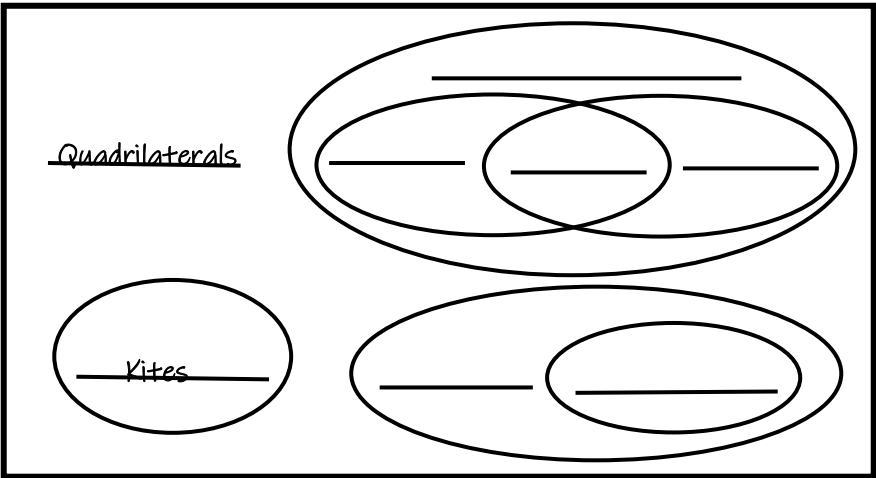


Section 6.6/9.1: Properties of Special Types of Quadrilaterals

Name: _____

Period: _____

1. Fill in the concept map below showing the relationship among quadrilaterals, parallelograms, trapezoids, isosceles trapezoids, kites, rectangles, squares, and rhombuses.



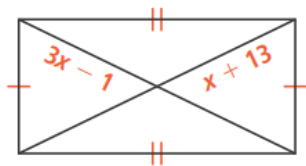
Word Bank
Quadrilaterals
Parallelograms
Trapezoids
Isosceles Trapezoids
Kites
Squares
Rhombi
Rectangles

2. Mark properties used to help you to classify a quadrilaterals?

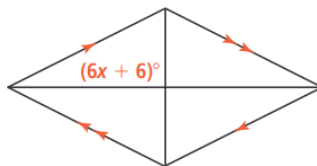
		Rectangles	Squares	Rhombi	Parallelogram	Trapezoids
Sides	All Sides are Congruent					
	Opposite Sides are Congruent					
	Opposite Sides are Parallel					
Angles	All Angles are Congruent					
	Opposite Angles are Congruent					
	Sum of Two Adjacent Angles is 180°					
Diagonals	Bisect Each Other					
	Intersect at 90°					

3. Solve for angles/segments in the following problems:

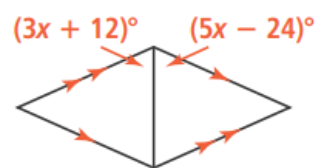
a. Solve for the value of x that makes this a valid rectangle.



b. Solve for the value of x that makes this a valid rhombus.



c. Solve for the value of x that makes this a valid rhombus.



4. Zachary is using two segments shown as diagonals of a quadrilateral he is making for a decal design for the cover of his smart phone.

Complete the table below showing at least four types of different quadrilaterals that Zachary can make using the segments as diagonals. For each type of quadrilaterals, draw a diagram showing an example. Label angle measures where the diagonals intersect, and label segment lengths of the diagonals.



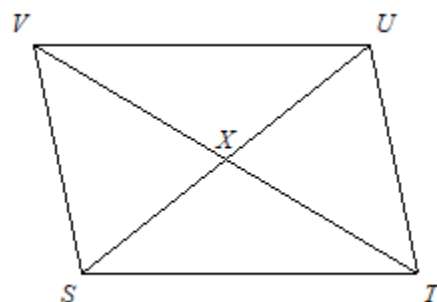
Square	Kite
Rectangle	Quadrilateral

5. Write a two-column proof for the following (CHALLENGE)

Given: $\overline{SV} \parallel \overline{TU}$ and $\Delta SVX \cong \Delta UTX$

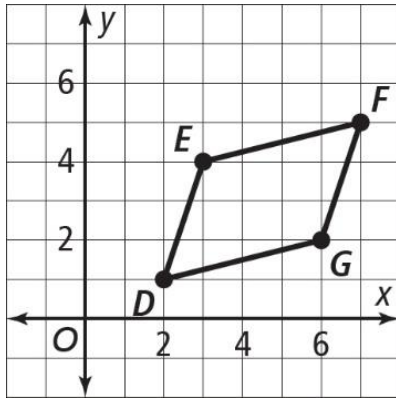
Prove: $VUTS$ is a parallelogram

Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.



6. Identify each quadrilateral as **precisely** as you can with the given information. Be sure to justify your choice using the properties of quadrilaterals.

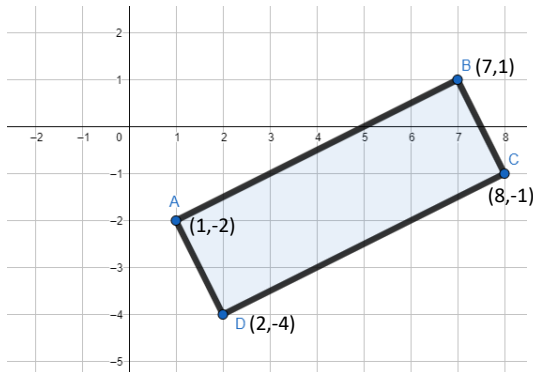
a.



(circle one) Quadrilateral $DEFG$ is a rectangle / rhombus / trapezoid / parallelogram / kite

Justification:

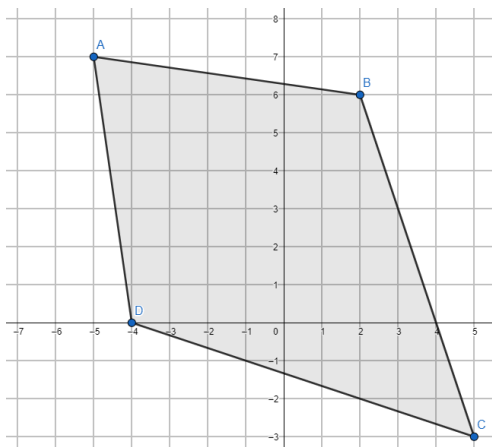
b.



(circle one) Quadrilateral $ABCD$ is a rectangle / rhombus / trapezoid / parallelogram / kite

Justification:

c.



(circle one) Quadrilateral $ABCD$ is a rectangle / rhombus / trapezoid / parallelogram / kite

Justification: