Learning Objective(s) _____ :

_____

_____

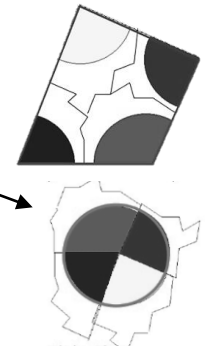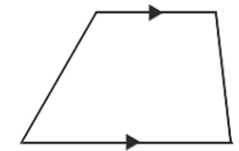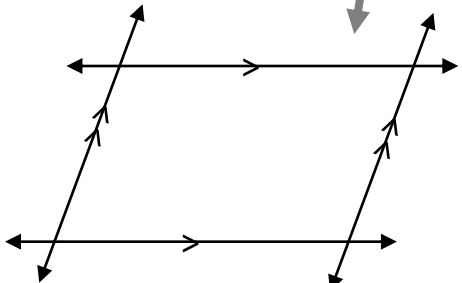| Main Ideas/ Questions	Notes
Quadrilateral Vocabulary	**Quadrilateral** – A _____-sided polygon
	Vertex (Vertices) – The point that connects _____ sides
	Adjacent side – Two sides that share a common _____
	Opposite side – The side opposite a specified _____
	Opposite angle – The angle opposite a specified _____
Quadrilateral Angle Characteristics	****Name** *a quadrilateral by using a quadrilateral symbol (▱)* *and each vertex's letter AROUND the quadrilateral.*** A B D C **Potential Names**: **Quadrilateral Sum Theorem** 4 Interior Angles = _____
Main Types of Quadrilaterals	**Quadrilateral** Characteristics: • ___ sides Characteristics: • Adjacent sides are _____ • 1 pair of opposite angles are _____ • Diagonals are _____ **Kite** **Parallelogram** **Trapezoid** Characteristics: • 1 pair of opposite sides are _____ **Isosceles Trapezoid** Additional Characteristics: • 1 pair of opposite sides are _____ • Diagonals are _____ • 2 pairs of _____ angles
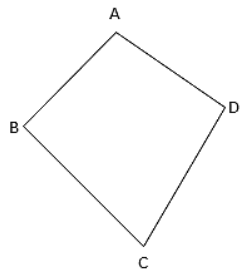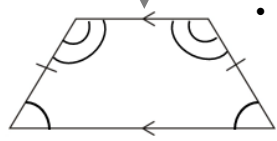
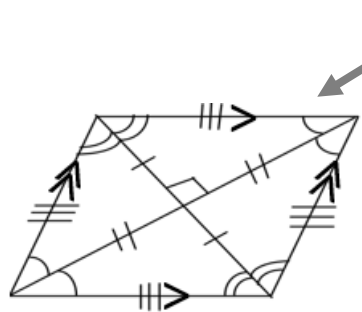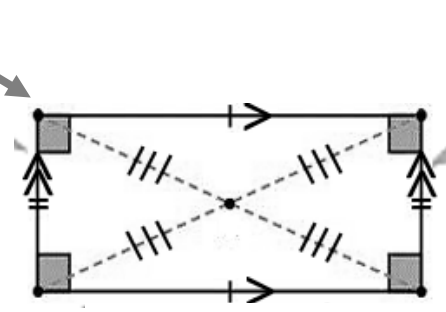| <u>Main Ideas/</u> <u>Questions</u>	Notes
Types of Parallelograms	
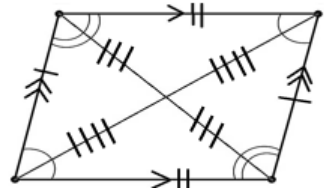
Parallelogram

<u>Characteristics:</u>
- Opposite sides are _____ AND _____
- Opposite angles are _____
- Consecutive angles are _____
- Diagonals _____ each other
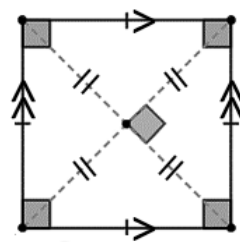
Rhombus

<u>Additional Characteristics:</u>
- ALL sides are _____
- Diagonals
    - ✓ Are _____
    - ✓ **BISECT** _____

Rectangle

<u>Additional Characteristics:</u>
- ALL corner angles are _____
- Diagonals are _____

Square

| Examples	**Label each statement as ALWAYS, SOMETIMES, or NEVER true.**

1. A square is a rectangle.

2. A rectangle is a square.

3. A kite has opposite angles are congruent.

4. A rhombus is a rectangle.

5. A parallelogram has diagonals that bisect each other.

6. A trapezoid has opposite sides are parallel.

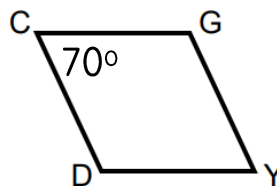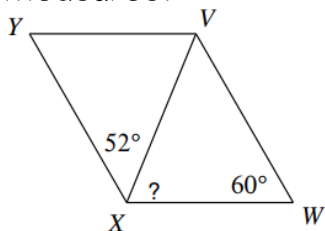# Topic: Types and Properties of Quadrilaterals

Main Ideas/ Questions

Examples

Notes

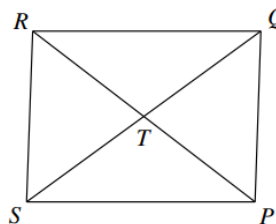7. ▱CDEF is a parallelogram. What is the length of FC?

F ? C
E 12.6 D
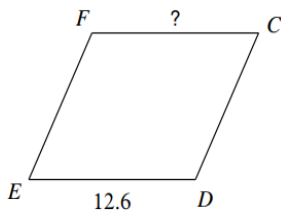
8. ▱CDYG is a parallelogram. Find the rest of the angles.

C G
70°
D Y

9. ▱VWXY is a parallelogram. What are the rest of the angle measures?

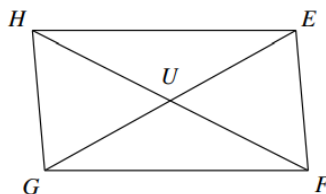Y V
52°
? 60°
X W

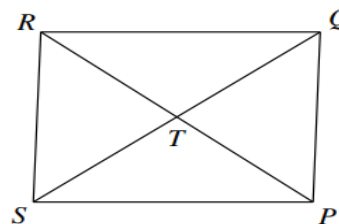10. ▱RQST is a square. If ST = 4, what is the length of side SP?

R Q
T
S P

11. ▱EFGH is a parallelogram Solve for x.

$UH = 19$
$FH = 5x - 7$

H E
U
G F

12. ▱RQSP is a rectangle. If RP = 4x - 8 and TQ = x + 3, what is the length of side SQ?

R Q
T
S P

Summary

Summarize the lesson in your own words with the help of the guided questions.

What are the main characteristics about quadrilaterals? What are the three main branches of quadrilaterals? What are the unique characteristics about each type of parallelogram? How can you use the characteristics of quadrilaterals to solve algebraic problems?