

# April 2, 2015

## 1st Grade Starter

Mr. Smith needs snacks for all the students going on a field trip. He bought 9 boxes of granola bars containing a total of 88 bars. He wanted variety, so he purchased 3 different flavors, which happened to come from 3 different companies. The almond chunky granola bars were packaged 8 to a box, the chewy chocolate chip bars came 10 to a box, and the super special raisin nut package contained 12 per box. He bought the most boxes of almond chunky, but had the most raisin nut bars.

How many boxes of each flavor did he buy?



## 4/2 Quadrilaterals

4 sides

Definition: 4-sided polygon

Work with your partner and name as many **QUADRILATERALS** as you can.

Parallelogram (ll-gram)	
Rectangle	Trapezoid
Square	Kite
Rhombus	

# Quadrilaterals

Parallelogram

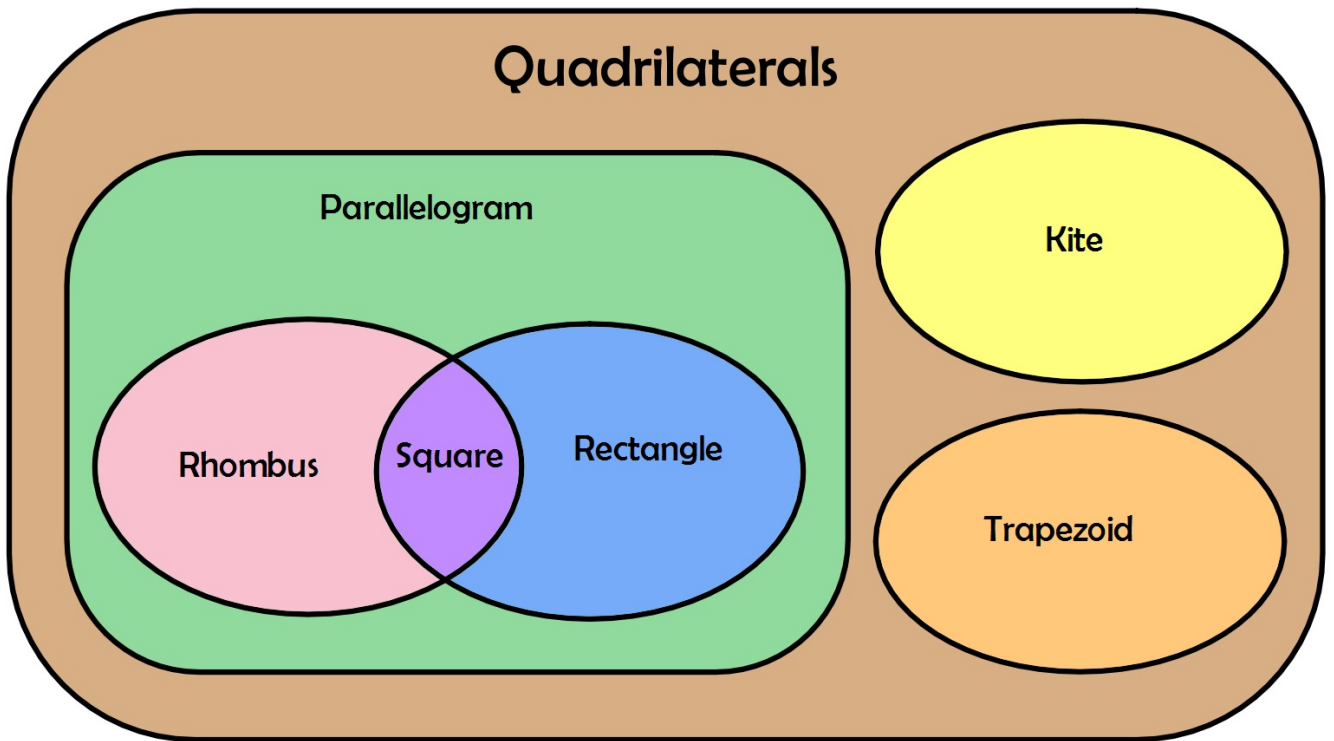
Rhombus

Square

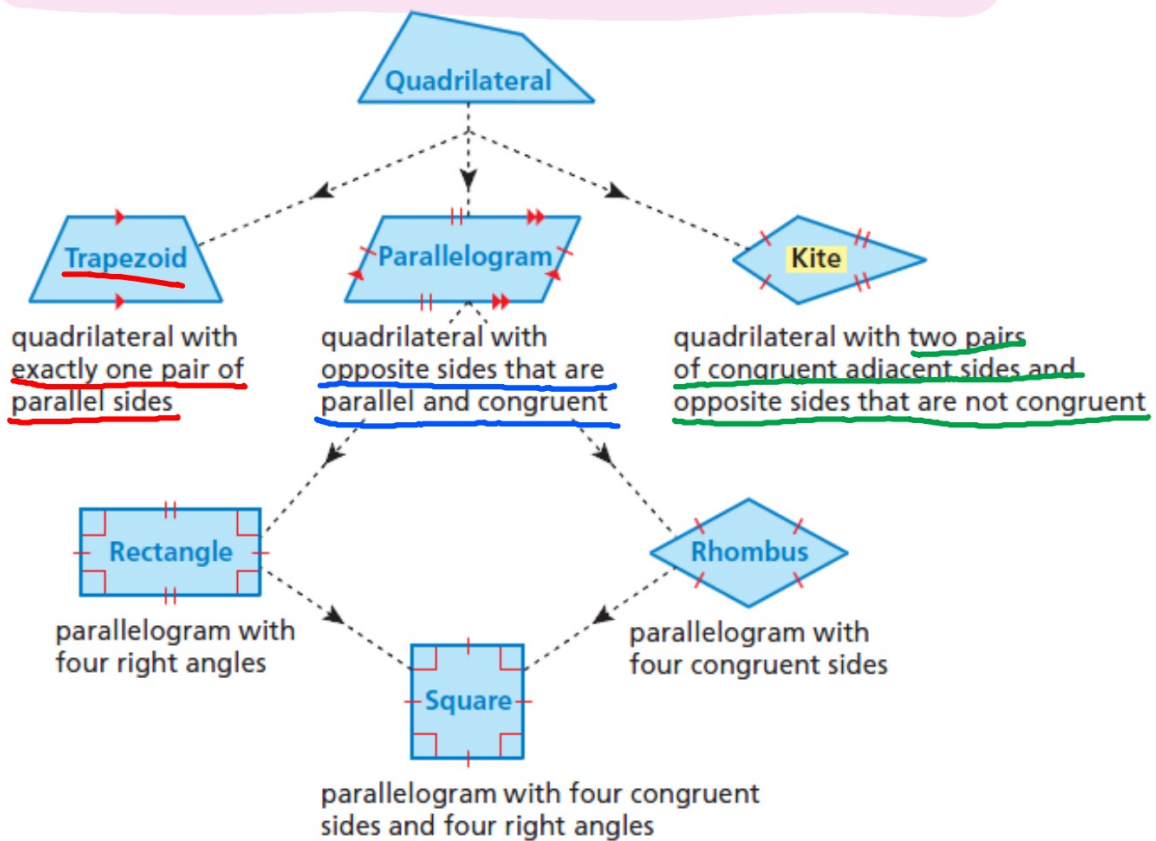
Rectangle

Kite

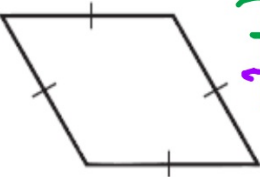
Trapezoid

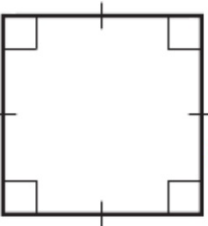


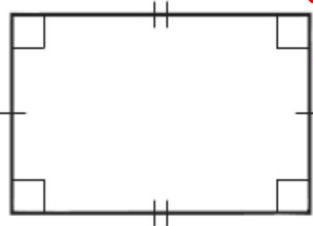
A quadrilateral is a polygon with four sides. The diagram shows properties of different types of quadrilaterals and how they are related. When identifying a quadrilateral, use the name that is most specific.

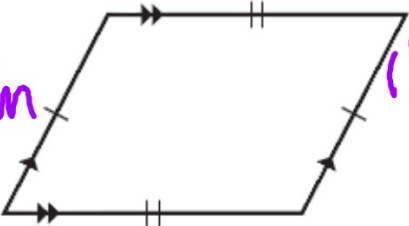



Classify the quadrilateral.

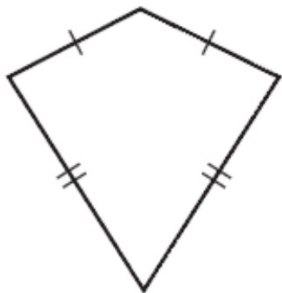
1.  Rhombus  
Parallelogram

2.  Square  
Rectangle  
Parallelogram  
Rhombus

3.  Rectangle  
Parallelogram

4.  Parallelogram

5.  Trapezoid

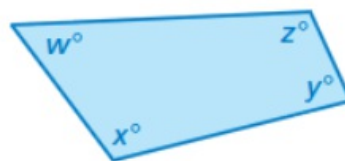
6.  Kite

## Key Idea

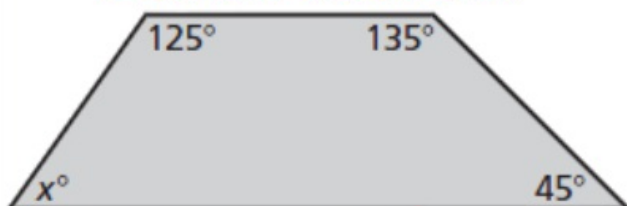
### Sum of the Angle Measures of a Quadrilateral

**Words** The sum of the angle measures of a quadrilateral is  $360^\circ$ .

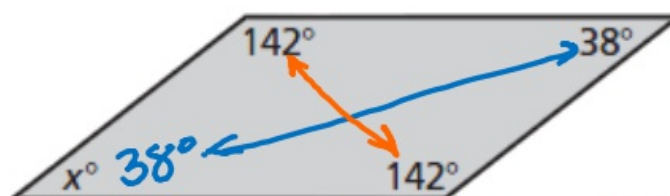
**Algebra**  $w + x + y + z = 360$



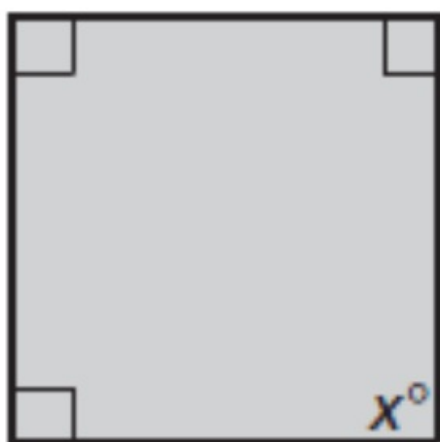
Find the value of  $x$



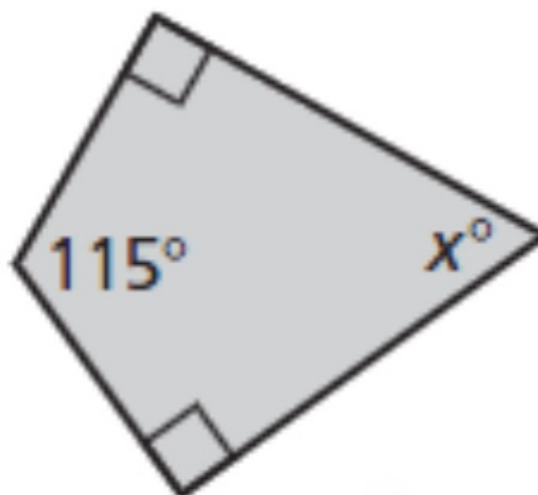
$$\begin{aligned}x + 125 + 135 + 45 &= 360 \\x + 305 &= 360 \\-305 &\quad -305 \\x &= 55\end{aligned}$$



$$\begin{aligned}x + 142 + 38 + 142 &= 360 \\x + 322 &= 360 \\-322 &\quad -322 \\x &= 38\end{aligned}$$



$$\begin{aligned}3(90) + x &= 360 \\270 + x &= 360 \\-270 &\quad -270 \\x &= 90\end{aligned}$$



$$\begin{aligned}115 + 90 + 90 + x &= 360 \\295 + x &= 360 \\-295 &\quad -295 \\x &= 65\end{aligned}$$

Fill in the blank with *always*, *sometimes*, or *never*.  
Explain by drawing diagrams.

A rectangle is ? a square.

A rhombus is ? a parallelogram.

A trapezoid is ? a kite.

A parallelogram is ? a rhombus.

Draw the following trapezoids. If it is not possible, explain why.

- a.** a trapezoid with one right angle
- b.** a trapezoid with two right angles
- c.** a trapezoid with three right angles
- d.** a trapezoid with four right angles



**Homework**

**Due**