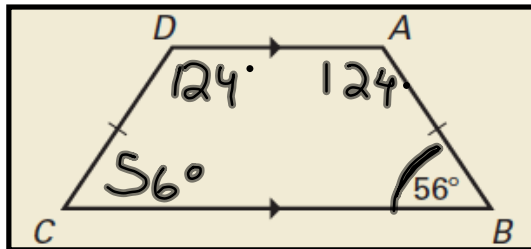
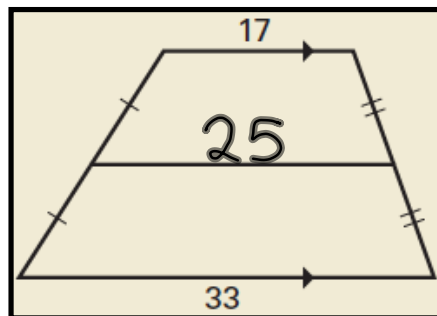


Bellwork 02/08/2012

1. Find $m\angle A$, $m\angle C$, and $m\angle D$.



2. Find the length of the midsegment of the trapezoid.



$$\frac{(33+17)}{2}$$

$$\frac{(50)}{2}$$

Geometry
8.6 Identify Special Quadrilaterals
Standard(s): 3, 9

Vocabulary:

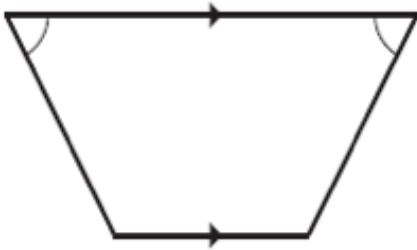
Properties of Quadrilaterals

Copy the chart. Put an X in the box if the shape *always* has the given property.

Property	\square	Rectangle	Rhombus	Square	Kite	Trapezoid
All sides are \cong .			X	X		
Both pairs of opp. sides are \cong .	X	X	X	X		
Both pairs of opp. sides are \parallel .	X	X	X	X		
Exactly 1 pair of opp. sides are \parallel .						X
All \triangle s are \cong .		X		X		
Exactly 1 pair of opp. \triangle s are \cong .					X	
Diagonals are \perp .			X	X	X	
Diagonals are \cong .		X		X		
Diagonals bisect each other.	X	X	X	X		

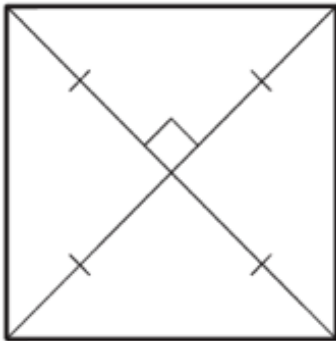
Classifying Quadrilaterals

Give the most specific name for the quadrilateral. *Explain.*



Isosceles Trapezoid

Thm 8.15



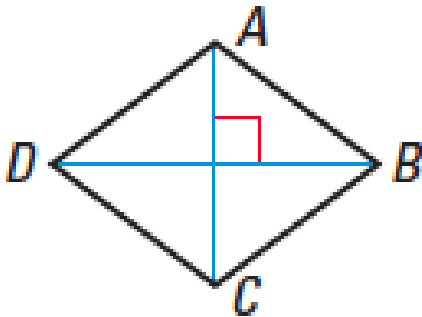
Square

- Square
corollary

Identifying Quadrilaterals

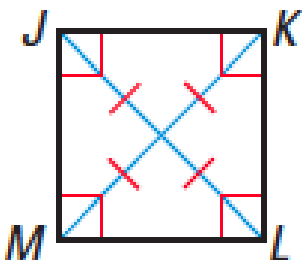
Tell whether enough information is given in the diagram to classify the quadrilateral by the indicated name. *Explain.*

RHOMBUS



No! It could be a kite.

SQUARE



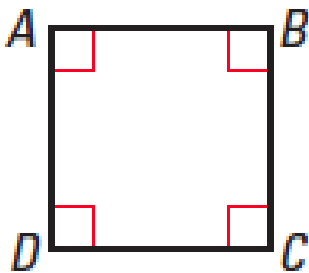
No! This could be a rectangle!

Developing a Proof

Which pairs of segments or angles must be congruent so that you can prove that ABCD is the indicated quadrilateral? *Explain.*

There may be more than one right answer.

Square



$$\overline{AB} \cong \overline{BC} \cong \overline{CD} \cong \overline{DA}$$

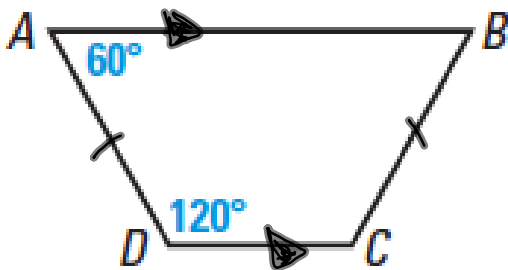
(rhombus)

or

$$\overline{AC} \cong \overline{BD}$$

(rhombus)

Isosceles Trapezoid



$$\angle D \cong \angle C$$

$$\angle A \cong \angle B \quad (\text{thm 8.15})$$

or

$$\overline{AD} \cong \overline{BC} \quad (\text{def. of isosceles trap.})$$

Homework Assignment

Worksheet 8.6B

