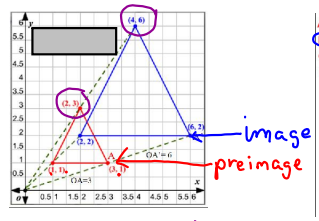
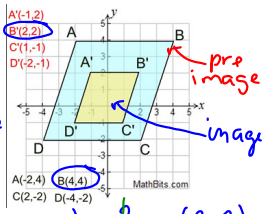
September 10, 2018

What are the scale factors for the following figures??





$(2,3) * 2 = (4,6)$ scale factor

How do you know?

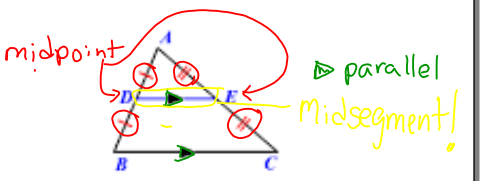
$(4,4) * \frac{1}{2} = (2,2)$ scale factor

Sep 6-9:58 AM

Triangle Midsegment Theorem

p 341 Read and copy the Triangle Midsegment Theorem

Draw a picture of what you think the Triangle Midsegment is describing...



$DE = \frac{1}{2} BC$

$2DE = BC$

Sep 6-9:59 AM

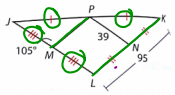
p342

Your Turn

6. Find JL, PM, and $m\angle MLK$.

$JL = 2PN = 2(39) = 78$

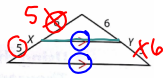
$PM = \frac{1}{2} KL = \frac{1}{2}(95) = 47.5$



Elaborate

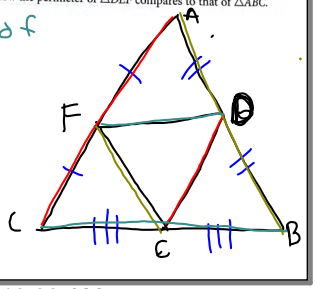
7. **Discussion** Explain why $\overline{XY}$ is NOT a midsegment of the triangle.

XY is Not at the midpoint.



8. **Essential Question Check-In** Explain how the perimeter of $\triangle DEF$ compares to that of $\triangle ABC$.

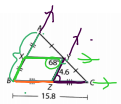
The perimeter of $\triangle DEF$ is $\frac{1}{2}$ the perimeter of $\triangle ABC$.



Sep 6-10:03 AM

p343

Find each measure.



6. $XY = \frac{1}{2}(15.8) = 7.9$

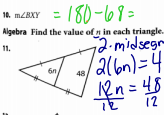
7. $BZ = \frac{1}{2}(15.8)$

8. $AX = 4.6$

9. $m\angle YZC = 68°$

10. $m\angle BXY = 180 - 68 =$

Algebra Find the value of n in each triangle.

11. 

2 · midsegment = the parallel side

$2(6n) = 48$

$\frac{12n}{12} = \frac{48}{12}$

$n =$

12. 

$2(11.3) = n + 4.2$

$22.6 = n + 4.2$

$-4.2 \quad -4.2$

$18.4 = n$

13. 

$2(n+12) = 6n$

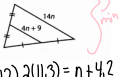
$2n + 24 = 6n$

$-2n \quad -2n$

$24 = 4n$

$\frac{24}{4} = \frac{4n}{4}$

$6 = n$

14. 

$2(4n+9) = 14n$

$8n + 18 = 14n$

$-8n \quad -8n$

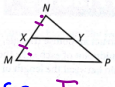
$\frac{18}{6} = \frac{6n}{6}$

$3 = n$

Sep 6-10:05 AM

p 344

15. Line segment XY is a midsegment of $\triangle MNP$. Determine whether each of the following statements is true or false.



3 trues : 3 falses

a. $MP = 2XY$ ~~false~~ T

b. $MP = \frac{1}{2}XY$ False ✓

c. $MX = XN$ True ✓

d. $MX = \frac{1}{2}NX$ ~~True~~ F

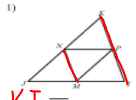
e. $NX = YN$ ~~False~~ ✓

f. $XY = \frac{1}{2}MP$ True ✓

Sep 6-10:05 AM

Triangle Midsegment Date Period

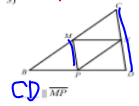
In each triangle, M, N, and P are the midpoints of the sides. Name a segment parallel to the one given.

1) 

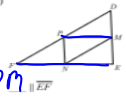
$KL \parallel \overline{MN}$ parallel

2) 

$MN \parallel \overline{EG}$

3) 

$CD \parallel \overline{MP}$

4) 

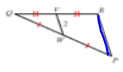
$PM \parallel \overline{EF}$

Find the missing length indicated.

5) Find TU

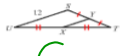
$\frac{1}{2}(22) = 11$

6) Find PR



$2(2) = 4$

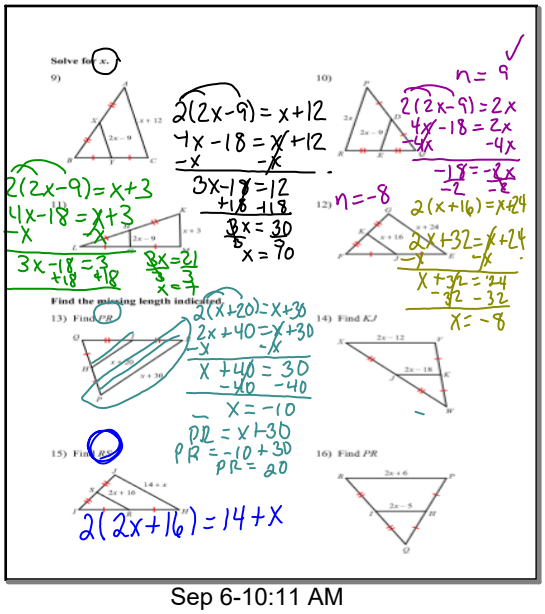
7) Find YX



6

8) Find TR

Sep 6-10:10 AM



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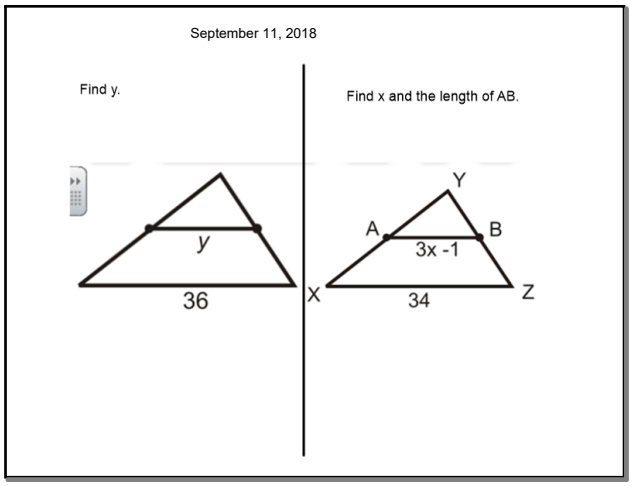


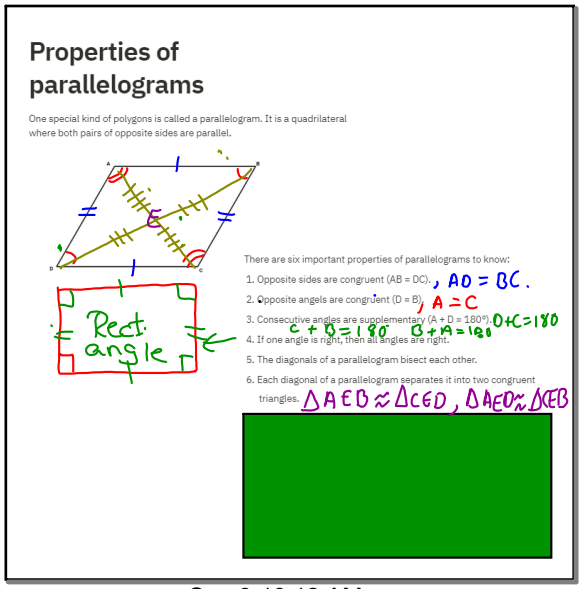
Sep 6-10:07 AM

Parallelogram vocabulary

Define the following words and draw a picture

- quadrilateral
- parallelogram
- diagonal

Sep 6-10:08 AM



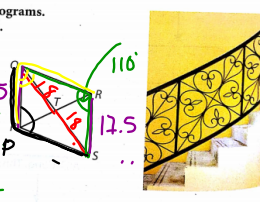
Sep 6-10:12 AM

p 363 copy theorems
p 364 copy theorem

p368 10-13

A staircase handrail is made from congruent parallelograms. In □PQRS, PQ = 17.5, ST = 18, and m∠QRS = 110°. Find each measure. Explain.

10. RS = 17.5
11. QT = 18
12. m∠PQR ∠PQR + ∠QRS = 180 ∠PQR + 110 = 180 −110 −110 ∠PQR = 70
13. m∠SPQ = 110



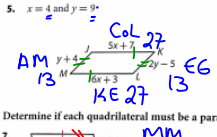
Sep 6-10:14 AM

p 371 copy theorem
p 372 copy theorems
p 373 copy theorem

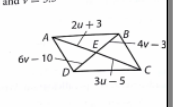
p 378

Show that each quadrilateral is a parallelogram for the given values of the variables.

5. $x = 4$ and $y = 9$



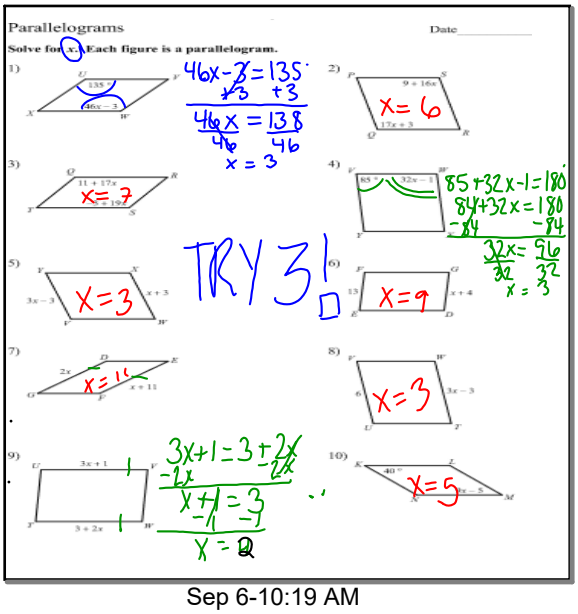
6. $u = 8$ and $v = 3.5$



Determine if each quadrilateral must be a parallelogram. Justify your answer.

7. Parallel MM Yes AO
8.
9. CM NO JG
10.
11. 180 = ? + 107 SF CoL Yes
12. 123° 57° 57° 123°

Sep 6-10:16 AM



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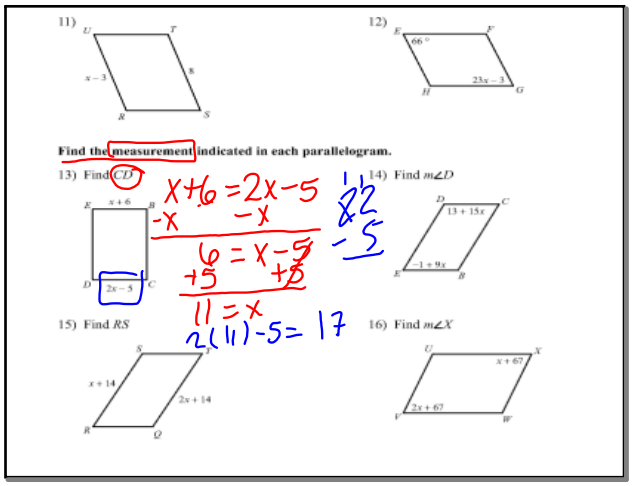

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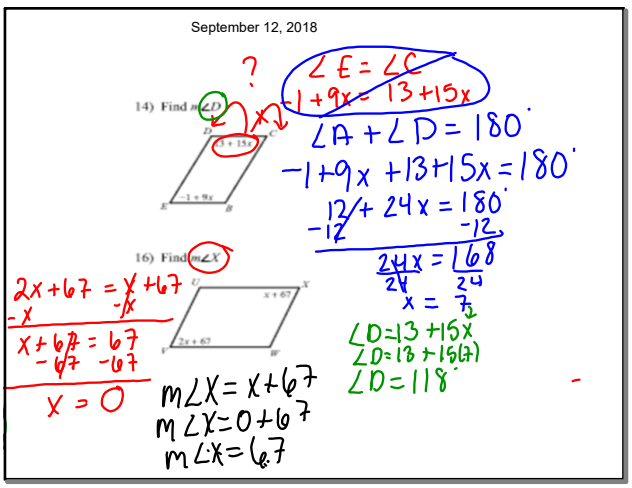

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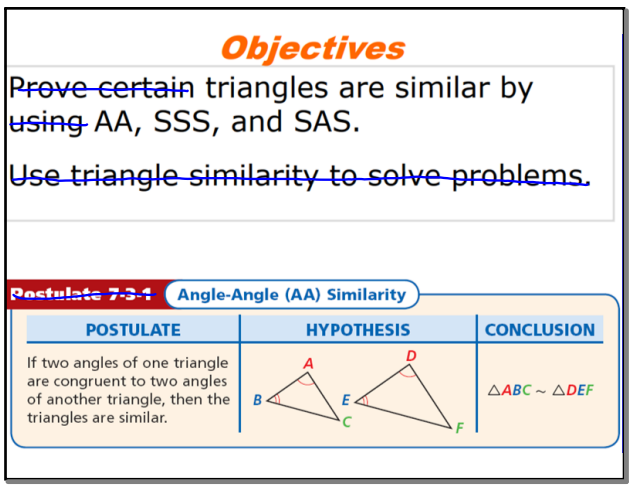
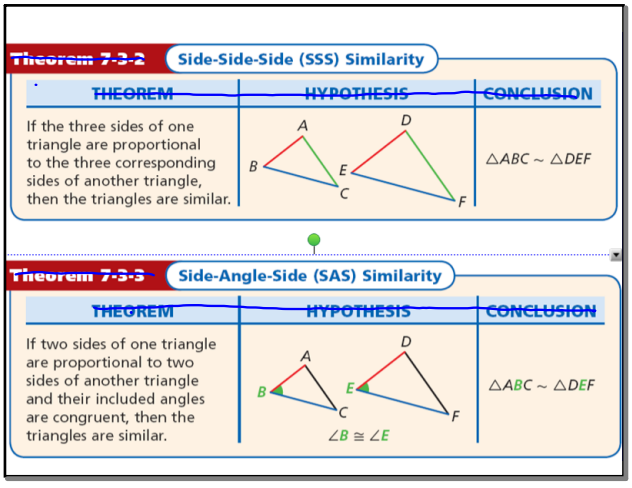
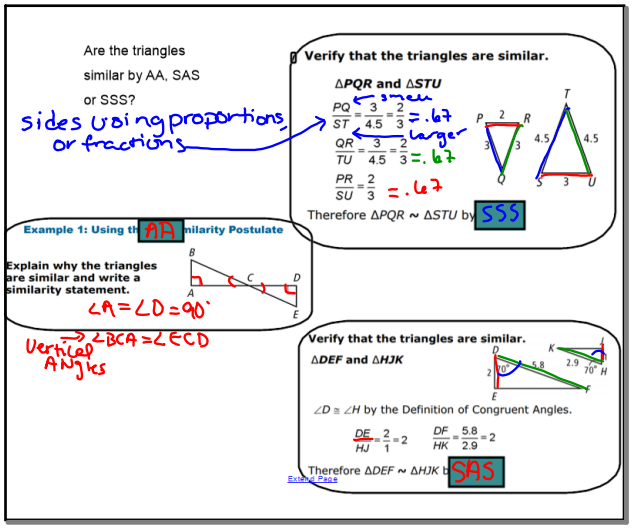


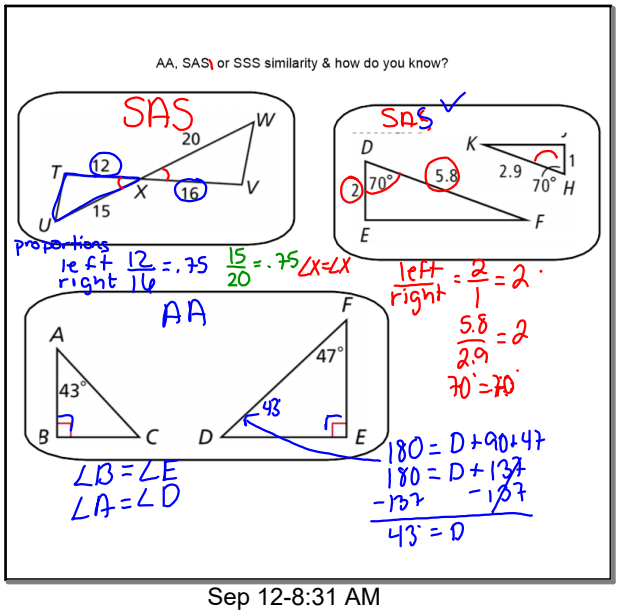
Sep 12-8:29 AM



Sep 12-8:30 AM



Sep 12-8:30 AM



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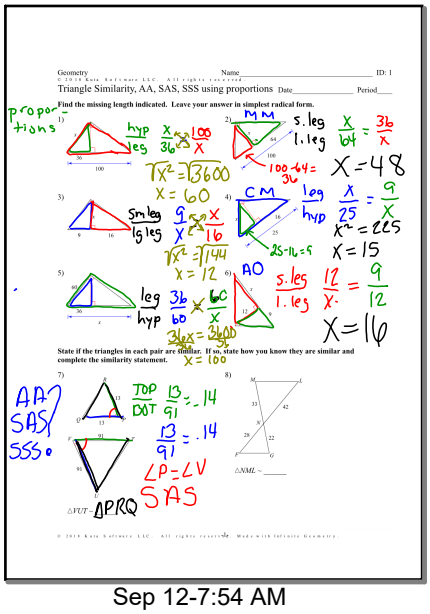
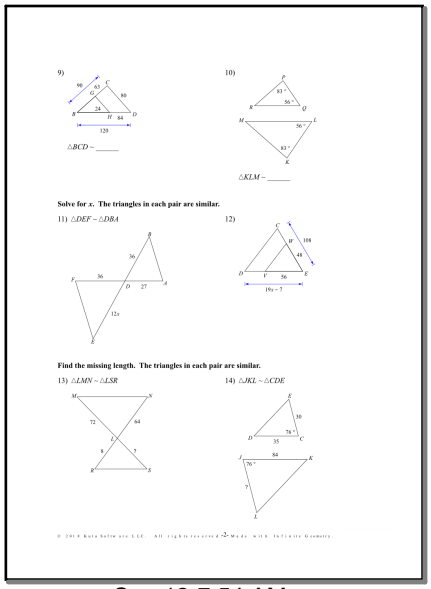
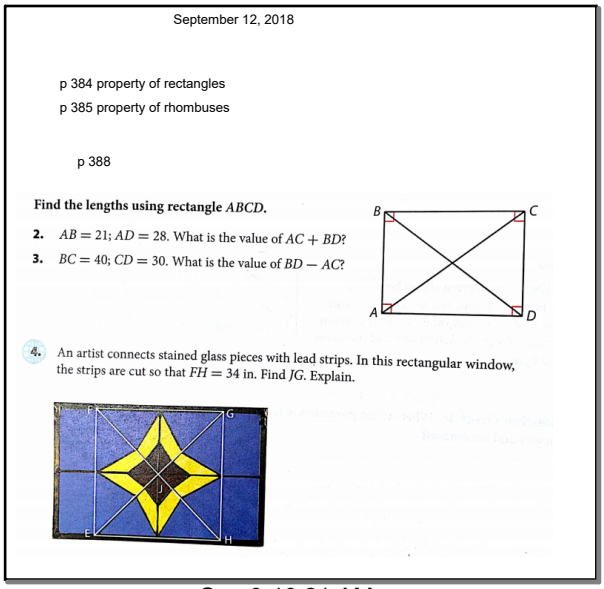


Sep 12-7:54 AM



Sep 12-7:54 AM



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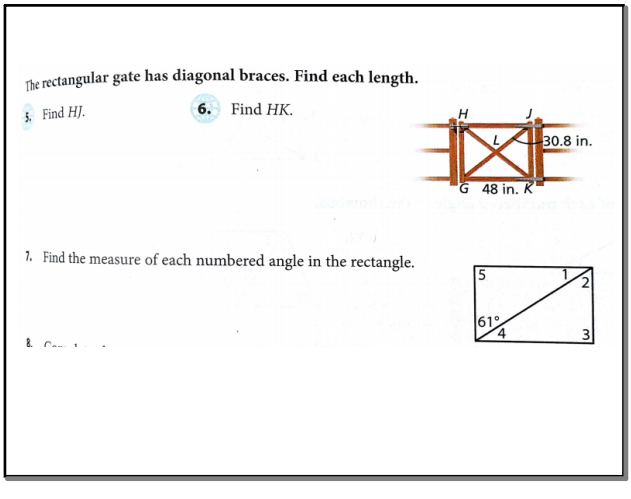

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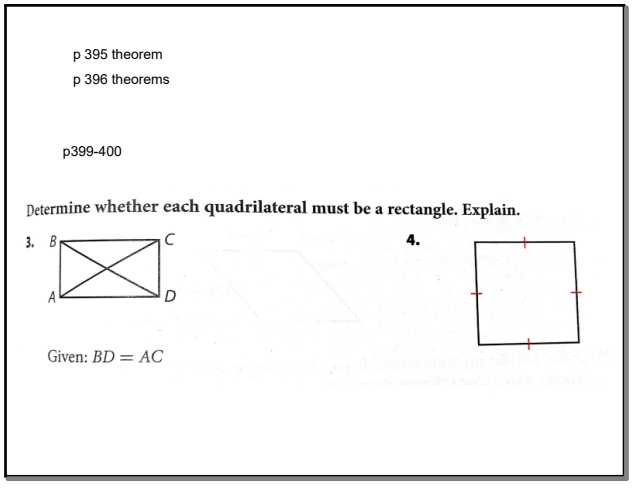

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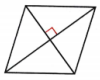
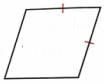
p 400

Each quadrilateral is a parallelogram. Determine whether each parallelogram is a rhombus or not.

5.



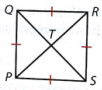
6.



Give one characteristic about each figure that would make the conclusion valid.

7. Conclusion: *JKLM* is a rhombus.

8. Conclusion: *PQRS* is a square.

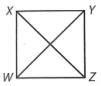


Sep 6-10:30 AM

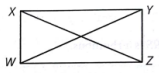
p 401

In Exercises 13–16, Determine which quadrilaterals match the figure: parallelogram, rhombus, rectangle, or square? List all that apply.

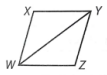
13. Given: $\overline{XY} \cong \overline{ZW}$, $\overline{XY} \parallel \overline{ZW}$, $\overline{WY} \cong \overline{XZ}$, $\overline{WY} \perp \overline{XZ}$



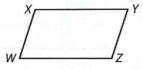
14. Given: $\overline{XY} \cong \overline{ZW}$, $\overline{XW} \cong \overline{ZY}$, $\overline{WY} \cong \overline{ZX}$



15. Given: $\angle WXY \cong \angle YZW$, $\angle XWZ \cong \angle ZYX$, $\angle XWY \cong \angle YWZ$, $\angle XYW \cong \angle ZYW$



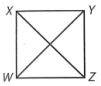
16. Given: $m\angle WXY = 130°$, $m\angle XWZ = 50°$, $m\angle WZY = 130°$



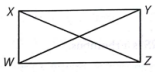
Sep 6-10:31 AM

In Exercises 13–16, Determine which quadrilaterals match the figure: parallelogram, rhombus, rectangle, or square? List all that apply.

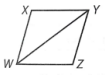
13. Given: $\overline{XY} \cong \overline{ZW}$, $\overline{XY} \parallel \overline{ZW}$, $\overline{WY} \cong \overline{XZ}$, $\overline{WY} \perp \overline{XZ}$



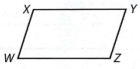
14. Given: $\overline{XY} \cong \overline{ZW}$, $\overline{XW} \cong \overline{ZY}$, $\overline{WY} \cong \overline{ZX}$



15. Given: $\angle WXY \cong \angle YZW$, $\angle XWZ \cong \angle ZYX$, $\angle XWY \cong \angle YWZ$, $\angle XYW \cong \angle ZYW$



16. Given: $m\angle WXY = 130°$, $m\angle XWZ = 50°$, $m\angle WZY = 130°$



Sep 6-10:31 AM

Quadrilateral G.O.

Quadrilaterals – Properties Chart

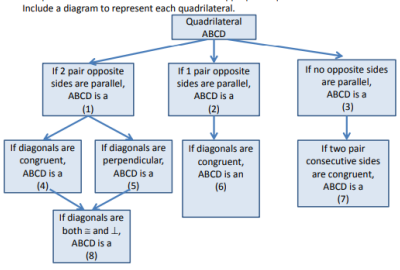
Complete the properties chart for each quadrilateral. Tell how many and which angles or sides fit each description. Tell the characteristics of the diagonals for each quadrilateral.

Figure	Congruent Angles	Congruent Sides	Parallel Sides	Diagonals
Parallelogram				
Rectangle				
Rhombus				
Square				
Trapezoid				
Isosceles Trapezoid				
Kite				

Sep 6-10:32 AM

Quadrilaterals – Flow Chart

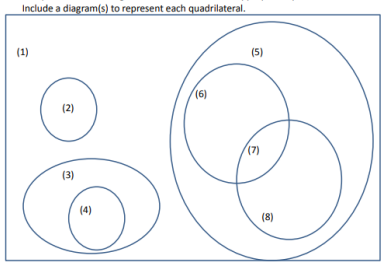
Complete the flow chart with the name of the appropriate quadrilateral. Include a diagram to represent each quadrilateral.



Sep 6-10:34 AM

Quadrilaterals – Venn Diagram

Complete the Venn diagram with the name of the appropriate quadrilateral. Include a diagram(s) to represent each quadrilateral.



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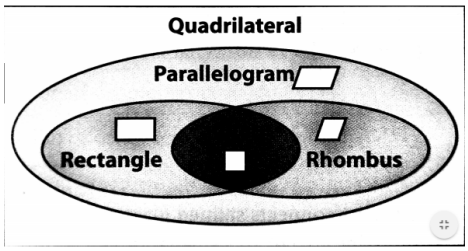
Let's discuss this...



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p 404 Four Kite Theorem

p 405 Thee Isosceles Trapezoid Theorems

p 408 Trapezoid midsegment Theorem

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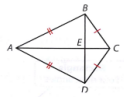
p 410

Evaluate: Homework and Practice

In kite $ABCD$, $m\angle BAE = 28°$ and $m\angle BCE = 57°$. Find each measure.



1. $m\angle ABE$
2. $m\angle CBE$
3. $m\angle ABC$
4. $m\angle ADC$

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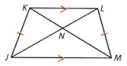
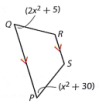
p 412-413

Use the isosceles trapezoid to find each measure or value.

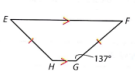
7. $LJ = 19.3$ and $KN = 8.1$. Determine MN.



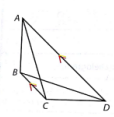
8. Find the positive value of x so that trapezoid $PQRS$ is isosceles.



9. In isosceles trapezoid $EFGH$, use the Same-Side Interior Angles Postulate to determine $m\angle E$.



10. $AC = 3y + 12$ and $BD = 27 - 2y$. Determine the value of y so that trapezoid $ABCD$ is isosceles.



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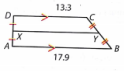
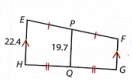
Find the unknown segment lengths in each trapezoid.

11. In trapezoid $ABCD$, find XY.



12. In trapezoid $EFGH$, find FG.



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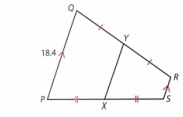
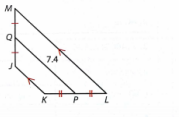
13. In trapezoid $PQRS$, $PQ = 4RS$. Determine XY.

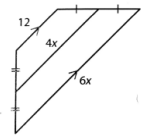


14. In trapezoid $JKLM$, $PQ = 2JK$. Determine LM.

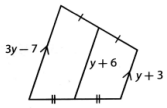


Algebra Find the length of the midsegment of each trapezoid.

18.



19.



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Study Guide

Sep 6-11:05 AM

Quiz

Sep 6-12:47 PM