

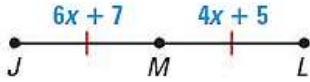
Geometry Fall Semester Final Exam Review Guide

Unit 1: Segment Relationships

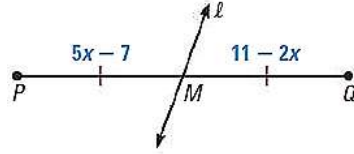
Unit 1 Grade: _____

I Can Use Segment Relationships to Solve Problems.

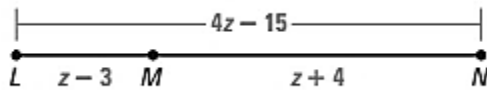
1. M is the midpoint of JL. Find JM.



2. Line l is the segment bisector of \overline{PQ} . Solve for x .



3. Find the length of LN.



4. If $RS = TU$, $ST = 19$, $RU = 33$, find...



a) Find RS

b) Find SU.

I Can Use and Apply Distance and Midpoint Formulas.

5. Find the length and midpoint of the points (3, 2) and (5, -2).

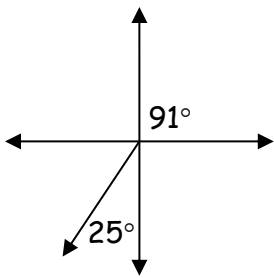
6. B is the midpoint of segment AC. The coordinates of A are (-10, 4) and the coordinates of B are (-2, 4). Find the coordinates of C.

Unit 2: Angle Relationships

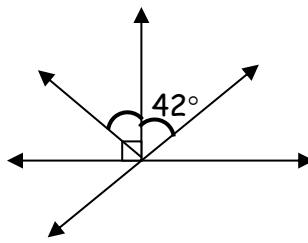
I Can Apply Angle Relationships to Solve Problems.

7. Find the missing angle measures:

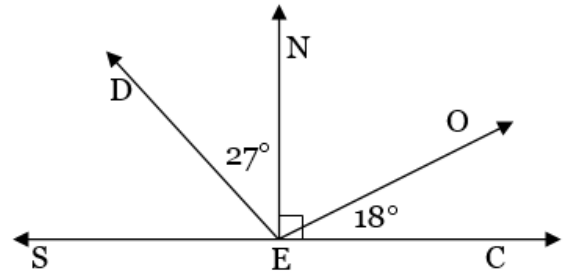
a.



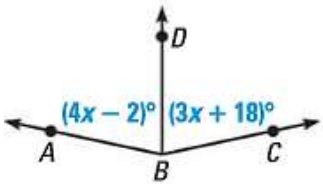
b.



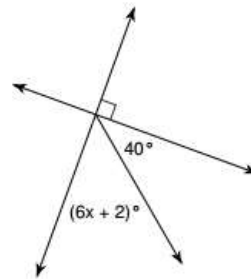
c.



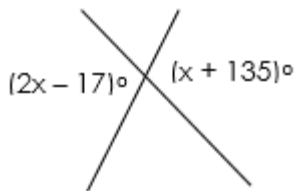
8. Given that \overline{BD} bisects $\angle ABC$, find the measure of $\angle ABC$.



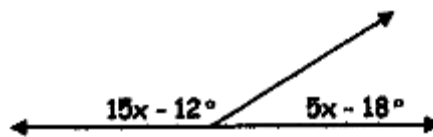
9. Solve for x.



10. Solve for x.

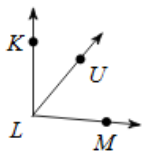


11. Solve for x.

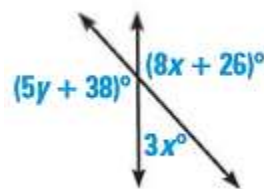


12.

Find x if $m\angle KLM = 14x + 11$,
 $m\angle KLU = 5x + 10$, and $m\angle ULM = 55^\circ$.



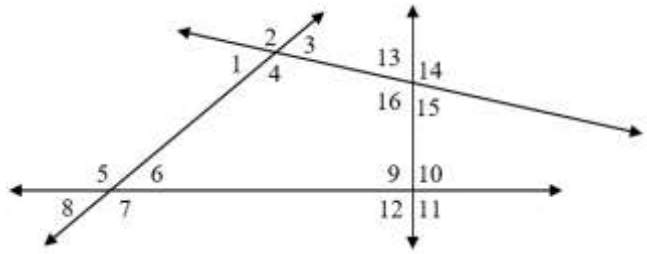
13. Solve for x and y.



I Can Use Parallel Line Relationships to Solve Problems.

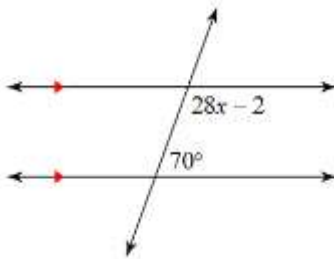
14. Refer to the figure and identify the special angle pair name.

- a) $\angle 3$ and $\angle 13$ _____
- b) $\angle 8$ and $\angle 10$ _____
- c) $\angle 11$ and $\angle 15$ _____
- d) $\angle 8$ and $\angle 6$ _____
- e) $\angle 1$ and $\angle 6$ _____
- f) $\angle 6$ and $\angle 10$ _____
- g) $\angle 14$ and $\angle 15$ _____

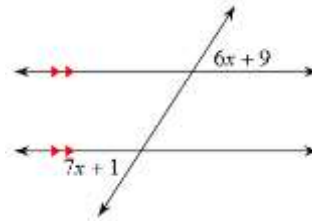


15. Identify the angle relationship you will use to solve for x . Then solve for x .

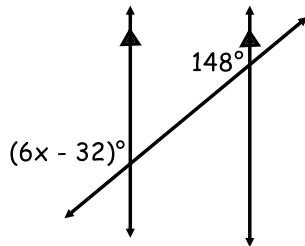
a. _____ $x =$ _____



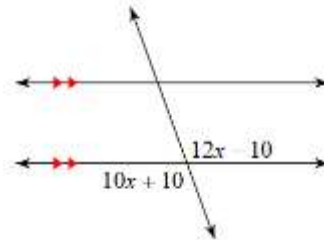
b. _____ $x =$ _____



c. _____ $x =$ _____



d. _____ $x =$ _____



I Can Recognize Algebraic Properties.

16. Name the algebraic property described below:

- a. If $a = b$, then $b = a$ _____
- b. If $a = b$, then $a + c = b + c$ _____
- c. If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$ _____
- d. If $a = b$, then $ac = bc$ _____
- e. $a = a$ _____

I Can Create a Proof Using Algebraic Properties.

17. Given: $a + b = c$
 $c = 7d$
 $a = b$

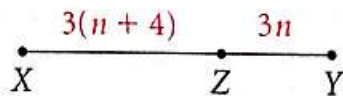
Prove: $7d = 2b$

	Statement		Reason
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	

I Can Create a Proof Using Algebraic Properties and Geometric Relationships.

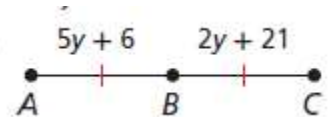
18. Given: $m\overline{XY} = 42$

Prove: $n = 5$



19. Given: B is the midpoint of AC.

Prove: $y = 5$



STATEMENTS

REASONS

STATEMENTS

REASONS

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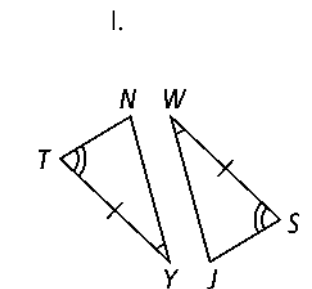
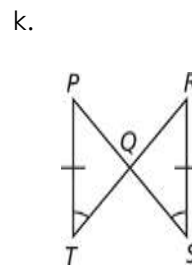
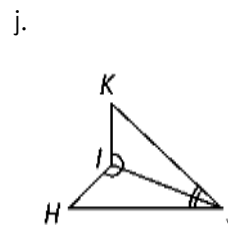
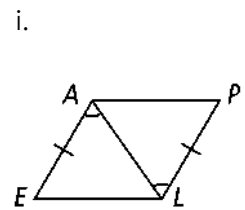
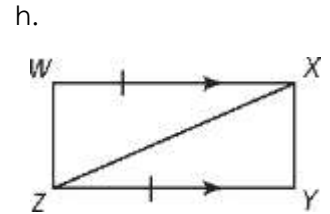
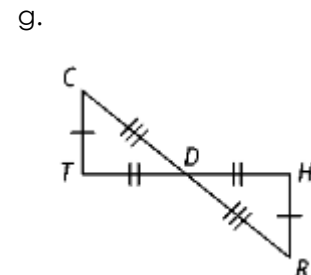
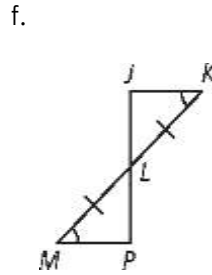
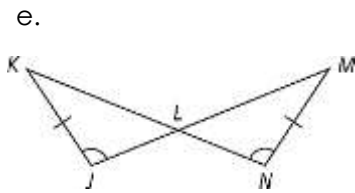
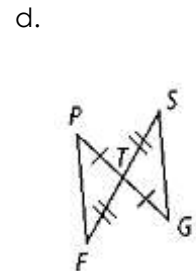
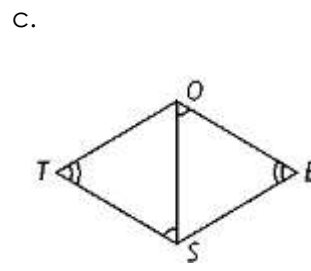
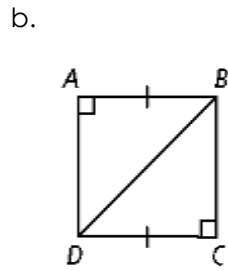
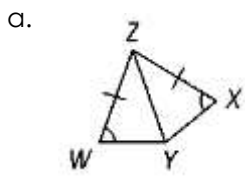
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Unit 4: Triangle Congruence

Unit 4 Grade: _____

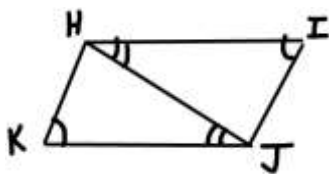
I Can Determine if Two Triangles are Congruent Using ASA, SAS, SSS, AAS, and HL.

20.



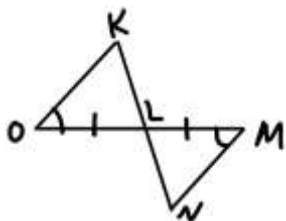
I Can Prove Two Triangles are Congruent Using ASA, SAS, SSS, AAS, HL, and CPCPTC.

21. Complete the proof below.



Statement	Reason
1. $\angle I \cong \angle K$	1.
2. $\angle IHJ \cong \angle KJH$	2.
3. $\overline{HJ} \cong \overline{HJ}$	3.
4. $\triangle HJK \cong \triangle JHI$	4.

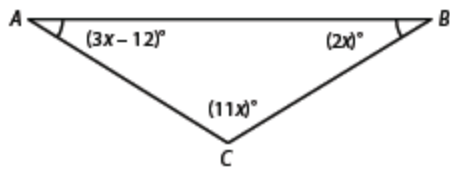
22. Complete the proof below.



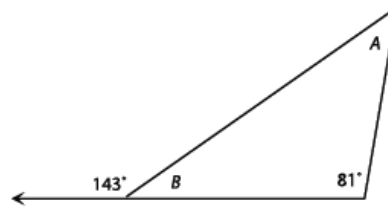
Statement	Reason
1. $\angle ___ \cong \angle M$	1. Given
2.	2. Given
3. $\angle KLO \cong \angle ___$	3.
4. $\triangle KLO \cong \triangle NLM$	4.
5. $\angle K \cong \angle N$	5.

I Can Solve Problems involving Triangle Relationships (Triangle Sum, Exterior Angle, & Isosceles Base Angles).

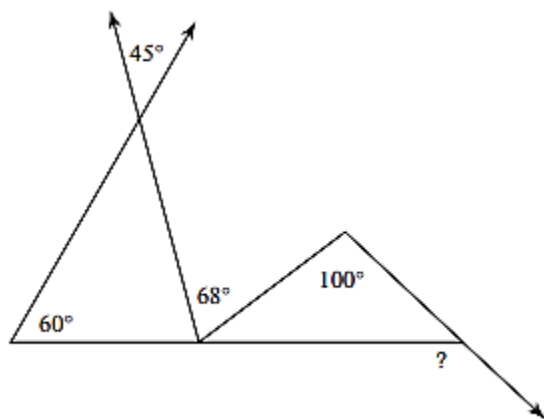
23. Find the measure of angle A.



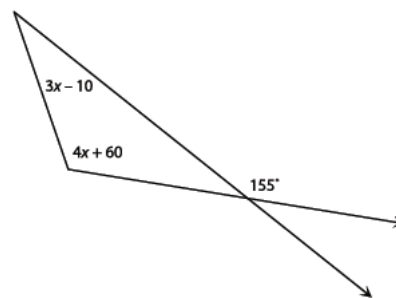
24. Find the measure of angle A.



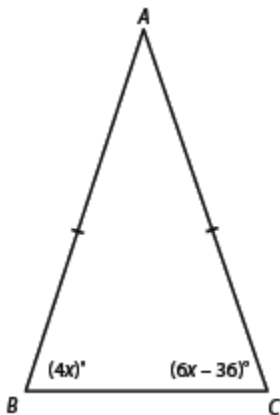
25. Find the measure of the missing angle.



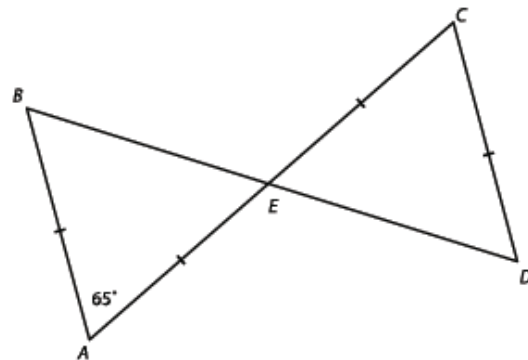
26. Solve for x.



27. Find the measure of angle A.

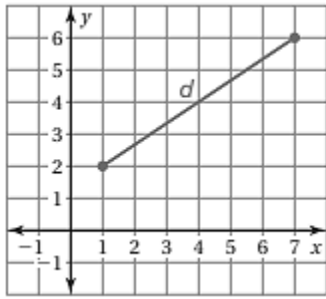


28. Find the measure of angle D.

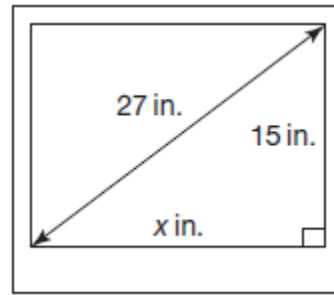


I Can Use and Apply the Pythagorean Theorem.

29. Find the length of line d.



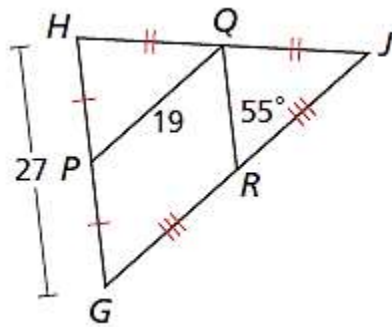
30. Find the length of the TV.



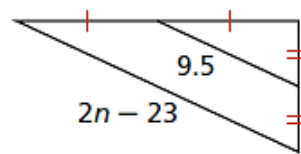
I Can Use and Apply the Triangle Midsegment Theorem.

31. Find the length of the stated sides:

- GJ = _____
- RQ = _____
- RJ = _____
- HP = _____

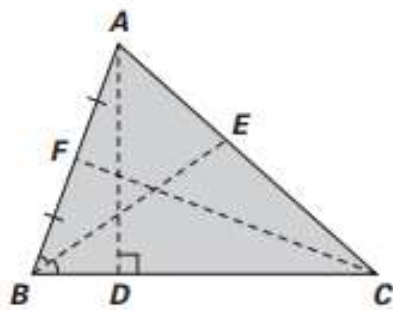


32. Solve for n.

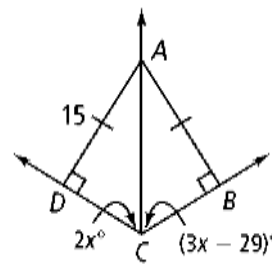


I Can Identify Segments in Triangles and Use Them to Solve Problems.

33. Identify the dotted lines as either an altitude, Perpendicular bisector, median, or angle bisector.



34. Answer the following questions:



$x =$ _____

$\overline{AB} =$ _____

$m\angle ACB =$ _____

I Can Determine if Three Sides Will Form a Triangle.

35. Determine whether you can construct a triangle with the following side lengths. Explain why or why not.
 a. 6, 7, 11 b. 3, 6, 9

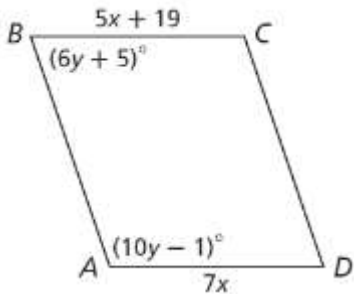
36. What are possible lengths for the 3rd side if the two side lengths are: 10, 12

Unit 6: Quadrilaterals

Unit 6 Grade: _____

I Can Apply Properties of Quadrilaterals to Solve Problems.

37. Name the relationship you would use to solve for x and y if you know the figure is a parallelogram. Then solve for x and y AND find the measure of angle C and side BC .



Relationship for x :

$x =$

$m\angle C =$ ____

Relationship for y :

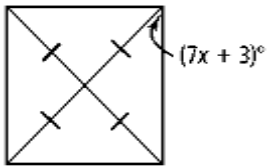
$y =$

$BC =$ ____

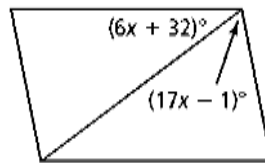
I Can Apply Properties of Special Quadrilaterals to Solve Problems.

38. Name the property used to solve for x and then solve for x for the following special quadrilaterals:

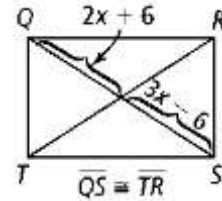
a. Square



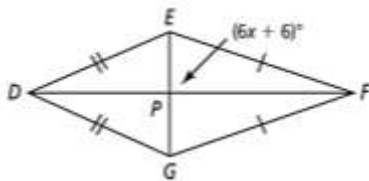
b. Rhombus



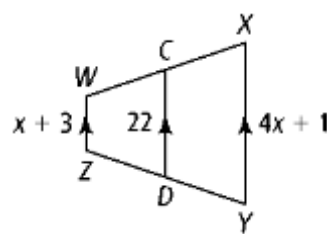
c. Rectangle



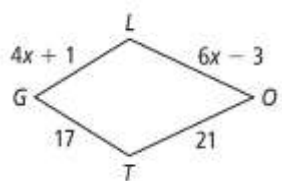
d. Kite



e. Isosceles Trapezoid

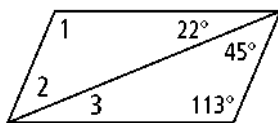


f. Kite

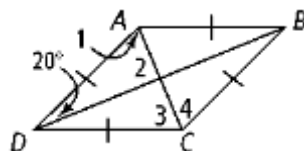


39. Find the measure of all numbered angles.

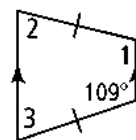
a. Parallelogram



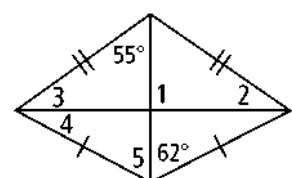
b. Rhombus



c. Trapezoid

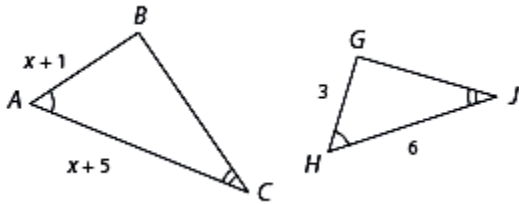


d. Kite

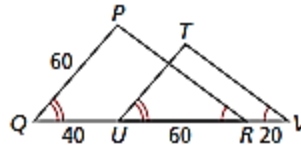


I Can Use Similar Figures to Solve Problems.

40. Find the value of x .



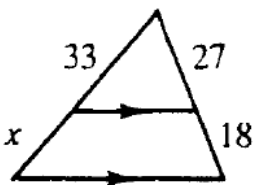
41. Find the length of TU.



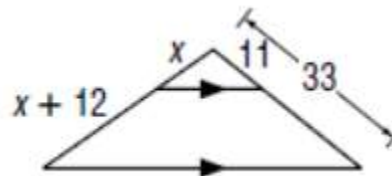
42. At a certain time of day, a tree that is 12 feet tall casts a shadow that is 8 feet long. Find the length of the shadow that is created by a 10 feet tall basketball hoop at the same time of the day.

I Can Use Similarity Theorems to Solve Problems.

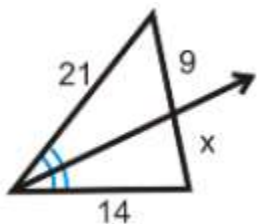
43. Solve for x .



44. Solve for x .



45. Solve for x .



46. Solve for y .

