Geometry CP – Midterm Exam Review

- **GET ORGANIZED.** Successful studying begins with being organized. Bring this packet with you to class every day.
- **DO NOT FALL BEHIND.** Do the problems that are assigned every night and come to class prepared to ask about the things you could not do.
- **GET SERIOUS.** The grade you earn on this exam is worth **20% of your semester grade**.
- **MAKE NOTES AS YOU WORK.** As you do these problems, you will come across formulas, definitions, problems, and graphs that you will want to put on your notecard.
- **NOTECARD:** Your notecard must be in your own writing. You may put on it anything you think will help you on the exam. You may use the front and back. You will turn it in with your exam.
- There is nothing on the exam that you have not studied this year.
- This packet is worth a **HUGE homework grade**.

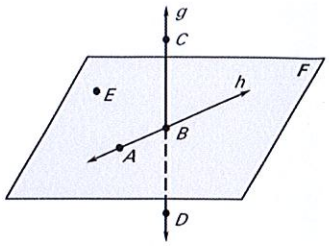
Midterm Review Assignments

Chapter	Due Date	☑
1	Tuesday, January 17th	
2 & 3	Wednesday, January 18th	
4	Thursday, January 19th	
5	Friday, January 20th	
6	Monday, January 23rd	

2nd Hour Exam: Tuesday, January 24th, 9:45 – 11:15
5th Hour Exam: Wednesday, January 25th, 9:45 – 11:15
6th Hour Exam: Thursday, January 26th, 8:00 – 9:30

Chapter 1 Midterm Review
Geometry CP

Name:_____



Use the diagram, to complete the following.

1. Give two other names for $\overleftrightarrow{AB}$

2. Name three points that are collinear

3. Give another name for plane F

4. Name a point that is not coplanar with A, B, and C

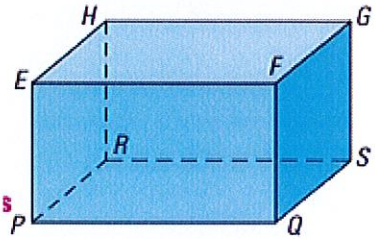
5. Give another name for $\overline{CD}$

6. Name three rays with endpoint B

7. Name a pair of opposite rays

8. Give another name for $\overrightarrow{CD}$

Use the diagram to complete the following.



9. Name the intersection of $\overleftrightarrow{PR}$ and $\overleftrightarrow{HR}$

10. Name the intersection of plane EFG and plane FGS

11. Name the intersection of plane PQS and plane HGS

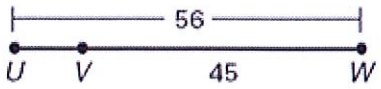
12. Are points P, Q and F collinear? Are they coplanar?

13. Are points P , E, G and S coplanar?

Find the indicated length.

14. Find KM

15. Find UV



Use the number line to find the indicated distance.

16. JK

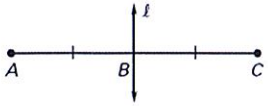
17. KL

18. LM

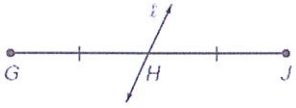
19. JL

Line l bisects the segment. Find the indicated length.

20. Find AC if AB = 6 cm.



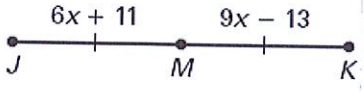
21. Find GJ if HJ = 10 cm.



In each diagram, M is the midpoint of the segment. Find the indicated length.

22. Find XM

23. Find JK



Find the coordinate of the midpoint of the segment with the given endpoints.

24. R(3, 1) and S(3, 7)

25. V(2, 4) and W(6, 6)

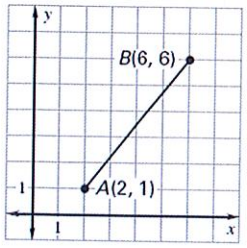
Use the given endpoint Y and MIDPOINT M of segment $\overline{YZ}$ to find the coordinates of the other endpoint Z.

26. Y (0, 5) and M (3, 3)

27. Y (-1, -3) and M (5, 9)

Find the EXACT length of the segment.

28.



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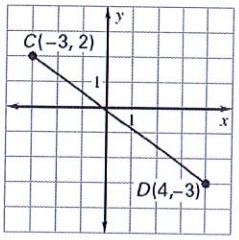


Classify the angle with the given measure as acute, right or obtuse.

30. m ∠A = 115°

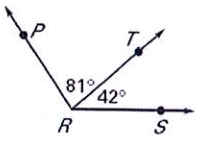
31. m ∠ A = 85°

32. m ∠ A = 90°

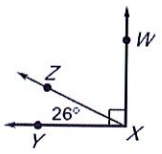
33. m ∠ A = 170°

Find the indicated angle measure.

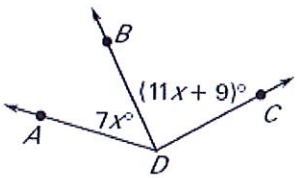
34. m ∠PRS



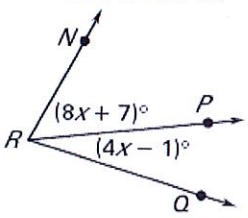
35. m ∠WXZ



36. Given m ∠ADC = 135°, find m ∠BDC

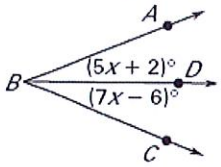


37. Given m ∠NRQ = 78°, find m ∠PRQ



In each diagram below, $\overrightarrow{BD}$ bisects ∠ABC, find the m ∠ ABC.

38.



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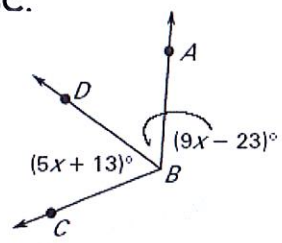
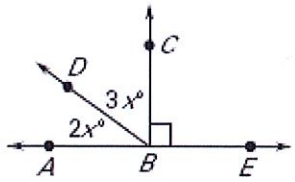


Find the measure of ∠ABD and m ∠DBC.

40.



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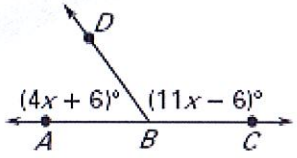
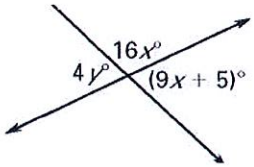


Find the values of x and y.

42.



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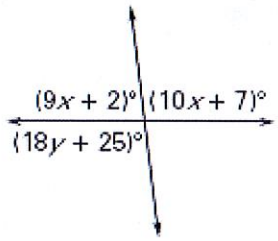
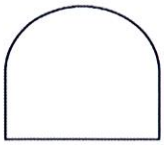


44. The measure of one angle is six times the measure of its complement. Find the measure of each angle.

45. The measure of one angle is 44° less than its supplement. Find the measure of each angle.

Tell whether each figure is a polygon, If it is not, explain why. If it is, tell whether it is convex or concave.

46.



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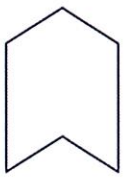

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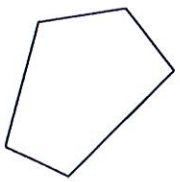
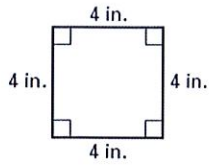
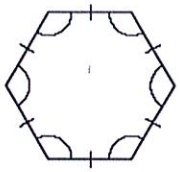
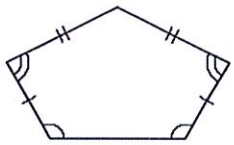


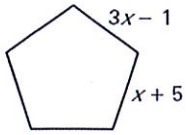
Classify the polygon by the number of sides. Tell whether the polygon is equilateral, equiangular or regular.

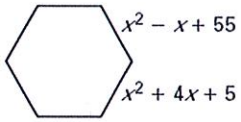
49. 

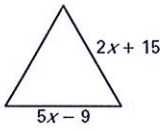
50. 

51. 

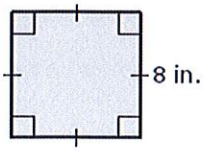
Each figure is a regular polygon. Find the value of x.

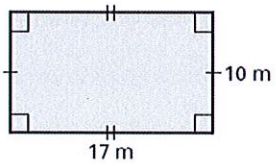
52. 

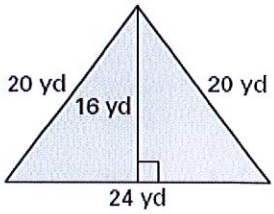
53. 

54. 

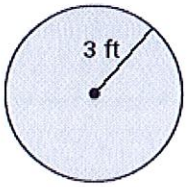
Find the perimeter AND the area of each figure.

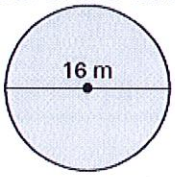
55. 

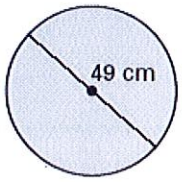
56. 

57. 

Find the EXACT circumference and area of the circle.

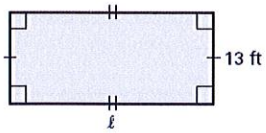
58. 

59. 

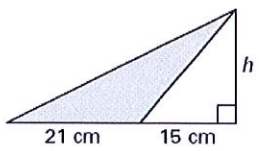
60. 

Use the information about the figure to find the indicated measure.

61. Perimeter = 84 ft ; find the length



62. Area = 189 sq. cm; find the height



Geometry CP
Midterm Review Chapter 2

Name_____

Give the next 2 numbers in the sequence

1. -3, 3, 9, 15, ...

2. 21, 12, 3, -6,...

3. 1, 8, 27, 64, ...

Decide if the statement is true or false. If false, provide a counterexample.

4. The cube of a number is greater than the square

5. If XY = YZ, then Y is the midpoint of $\overline{XZ}$

6. If two planes intersect, their intersection is a segment

7. Through any two points, there exists exactly one line

8. If two lines intersect, their intersection is a point

9. A line can be in more than one plane

Write the converse, inverse and contrapositive of each statement. Tell whether each is true or false.

10. If the measure of an angle is less than 90°, then the angle is acute

Converse: _____ T F

Inverse: _____ T F

Contrapositive : _____ T F

11. If two angles are supplementary, then they are adjacent

Converse: _____ T F

Inverse: _____ T F

Contrapositive : _____ T F

12. If two rays share a vertex, then they are opposite rays

Converse: _____ T F

Inverse: _____ T F

Contrapositive : _____ T F

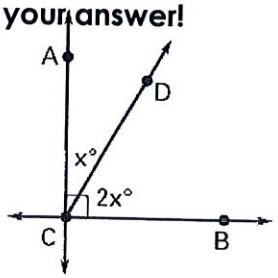
Rewrite the conditional statement into If-Then form. Then write the statement as a biconditional statement.

13. All Grosse Pointe South students take three math courses

If-Then: _____

Biconditional: _____

Decide whether each statement about the diagram is true. Explain your answer!



14. $\overleftrightarrow{AC}$ is perpendicular to $\overleftrightarrow{BC}$

15. ∠ACD and ∠DCB are complementary

16. $\overleftrightarrow{CD}$ bisects ∠ACB

Use the Law of Detachment or the Law of Syllogism (Chain Rule) to make a valid conclusion. State the law that is used.

17. If it is a weekday, Natalie is at school. Today is Wednesday.

Conclusion_____ Law _____

18. If you like to study history, then you like to read books. If you like to read books, then you enjoy going to the library.

Conclusion_____ Law _____

19. If you can drive a car, then you must act responsibly. If you pass a driver's test, then you can drive a car.

Conclusion_____ Law _____

20. If a person is in the U.S., he or she is a U.S. citizen. Emily was born in Michigan.

Conclusion_____ Law _____

21. If a triangle has a right angle, then it's a right triangle. If a polygon is a right triangle, then the two acute angles are complementary

Conclusion_____ Law _____

22. Using words and a diagram, describe the segment addition postulate. Then describe the angle addition postulate.

23. Find the measure of NA if A is between N and V, NV = 6x – 2, NA = 4x and AV = 16

Solve for y in each equation and justify each step.

24. $7x - 2y = 20$

Steps Reasons

25. $3y + 8 = -4y - 34$

Steps Reasons

26. $5(3y - 1) = 9y + 2$

Steps Reasons

Use a property of equality to complete the statement

27. If m∠1 = m∠3, then m∠3 = _____

28. If AB = CD and CD = TU, then _____ = _____

29. If RS = WX, then ____ + AB = _____ + AB

30. If m∠A = 45, then 3(m∠A) = 3(____)

Name the property illustrated by the statement

31. ∠ J ≅ ∠ J

32. If $\overline{KL} \cong \overline{BC}$, then $\overline{BC} \cong \overline{KL}$

33. If $< P \cong < R$ and $< R \cong < S$, then $< P \cong < S$

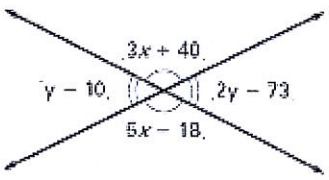
31. _____

32. _____

33. _____

Find the value of x and y in each problem

34.



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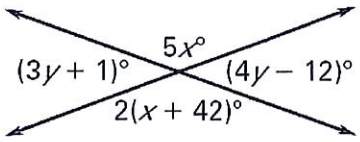

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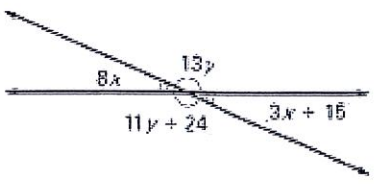


34. x = _____ y = _____

35. x = _____ y = _____

36. x = _____ y = _____

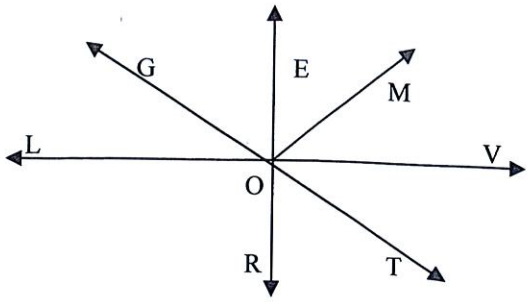
Given: $\overleftrightarrow{ER} \perp \overleftrightarrow{LV}$ and $\overleftrightarrow{OM} \perp \overleftrightarrow{TG}$ and m∠GOE = 47 **Find the following:**

37. $m\angle GOM =$_____ 38. $m\angle ROT =$_____

39. $m\angle LOR =$_____ 40. $m\angle TOL =$_____

41. $m\angle LOG =$_____ 42. $m\angle VOT =$_____

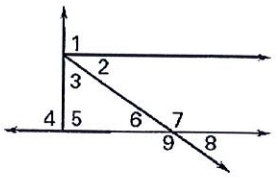
43. $m\angle MOE =$_____ 44. $m\angle MOR =$_____



Given: ∠1 is a right angle and m∠6 = 36 **Complete the statement with < , > , or =**

45. m∠6 + m∠7 __?__ m∠4 + m∠5 46. m∠2 + m∠3 __?__ m∠1

47. m∠6 + m∠8 __?__ m∠2 + m∠3 48. m∠9 __?__ 3(m∠6)



Write a proof for the following

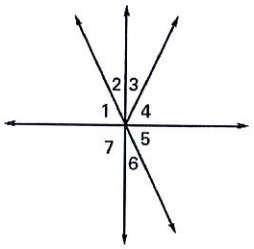
49. Given: RT = SU
Prove: RS = TU

Statement	Reason

50. Given: AB = CD
Prove: AC = BD

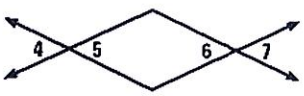
Statement	Reason

51. Given: ∠3 ≅ ∠2
Prove: ∠3 ≅ ∠6



Statement	Reason

52. Given: ∠5 ≅ ∠6
Prove: ∠7 ≅ ∠4



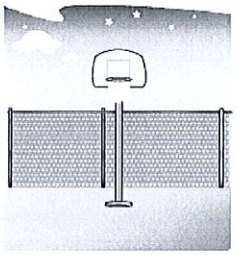
Statement	Reason

Chapter 3 Midterm Review Name:_____

Geometry CP

Determine whether the given figure shows parallel, perpendicular, or skew lines.

1.

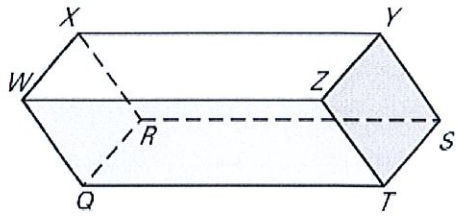


a.) The top of the fence & the basketball pole.

b.) The top of the fence & the fence posts.

c.) The fence posts & the basketball pole.

2. All angles shown are right angles.



a.) $\overline{XY}$ and $\overline{WZ}$ b.) $\overline{XY}$ and $\overline{ZT}$

c.) $\overline{XY}$ and $\overline{YS}$ d.) $\overline{XY}$ and $\overline{QT}$

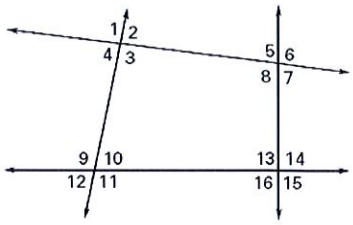
3. Classify the following pairs of angles.

a.) $\angle 1$ & $\angle 5$ b.) $\angle 1$ & $\angle 9$

c.) $\angle 1$ & $\angle 3$ d.) $\angle 1$ & $\angle 4$

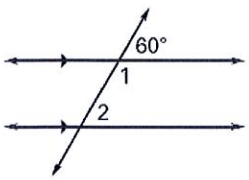
e.) $\angle 2$ & $\angle 8$ f.) $\angle 3$ & $\angle 8$

g.) $\angle 3$ & $\angle 9$ h.) $\angle 9$ & $\angle 15$ i.) $\angle 4$ & $\angle 9$

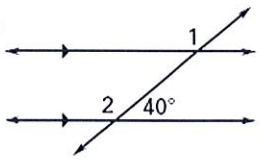


Find the measure of $\angle 1$ and $\angle 2$.

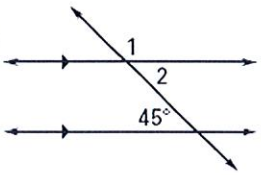
4.



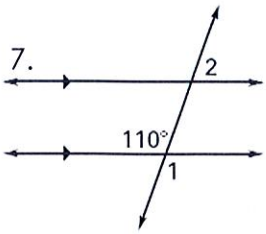
5.



6.

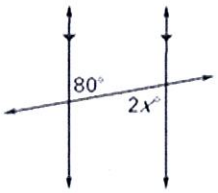


7.

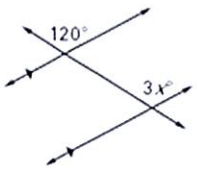


Find the value of x in each of the following diagrams.

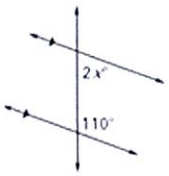
8.



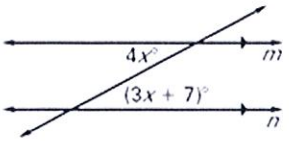
9.



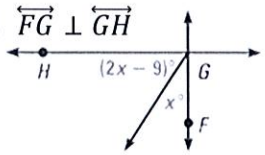
10.



11.

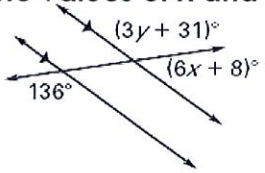


12. $\overleftrightarrow{FG} \perp \overleftrightarrow{GH}$

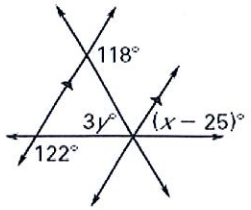


Find the values of x and y in each of the following diagram:

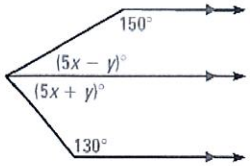
13.

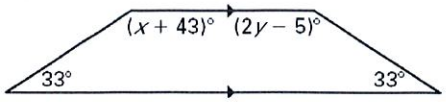


14.



Find the values of x and y in each of the following diagrams

15. 

16. 

17. Determine which lines are parallel (if any) based on the given angle relationship.

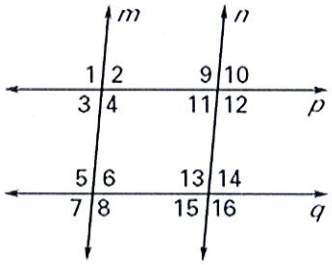
a.) $\angle 1 \cong \angle 5$

b.) $\angle 4 \cong \angle 9$

c.) $\angle 6$ *supp* $\angle 13$

d.) $\angle 12$ *supp* $\angle 14$

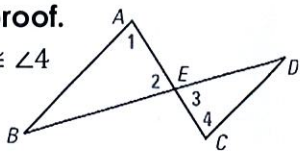
e.) $\angle 10 \cong \angle 15$



18. Complete the following proof.

Given: $\angle 1 \cong \angle 2$ and $\angle 3 \cong \angle 4$

Prove: $\overline{AB} \parallel \overline{CD}$



Statements	Reasons

Find the slope of the line that passes through the given points.

19. (2, 4) & (8, 4)

20. (5, 0) & (5, -4)

Using slopes, determine if the lines are parallel, perpendicular, or neither.

21. Line 1: (1,1) & (3,3)
Line 2: (2, 2) & (0, 4)

22. Line 1: (-2, 3) & (-5, 2)
Line 2: (4, 1) & (5, 3)

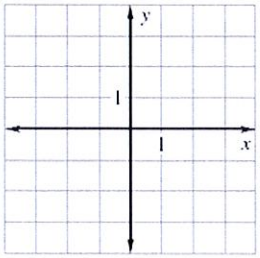
23. Line 1: (-3, -2) & (1, 2)
Line 2: (1, 3) & (4, 6)

24. Graph the line with the given slope that passes through the given point.

Line A: (2, 1); slope: 3

Line B: (-3, -2); slope: 3

Line C: (0, 2); slope: -1/2



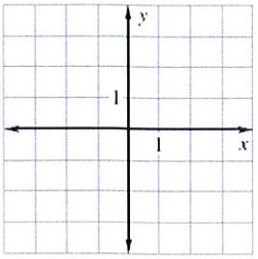
Graph each line on the coordinate plane.

25. $y = 2x - 1$

26. $4x + 8y = 16$

27. $y = -4$

28. $x = -2$



Determine an equation for each line.

29. Passes through (0, 4) with a slope of 2.

30. Passes through (2,6) with a slope of -5.

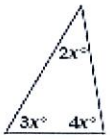
31. Passes through (2, 6) and (4, 12).

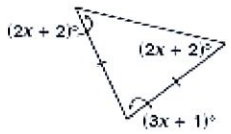
32. Passes through (2,6) & perpendicular to $y = 2x + 9$.

Geometry CP Name_____

Chapter 4 Review

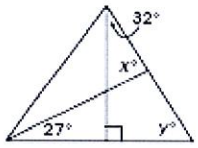
Find the value of x, then classify the triangle by its sides and angles.

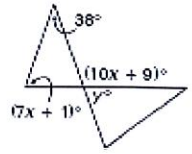
1. 

2. 

Find the value(s) of x and y.

3. 

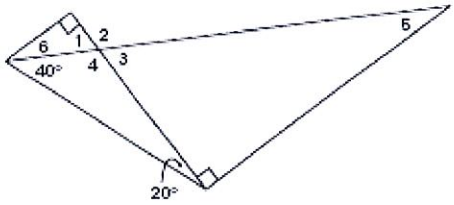
4. 

5. 

Find the measure of each of the missing angles.

6. $m\angle 1$

7. $m\angle 2$



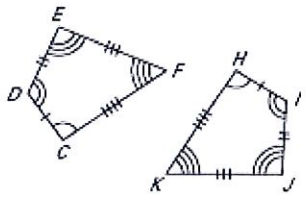
8. $m\angle 3$

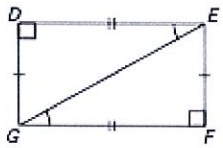
9. $m\angle 4$

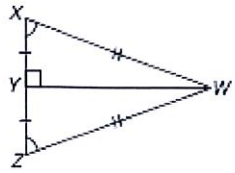
10. $m\angle 5$

11. $m\angle 6$

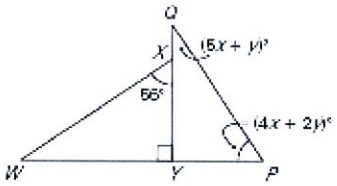
Write a congruence statement for the two polygons.

12. 

13. 

14. 

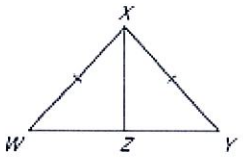
15. Find the values of x and y.



16. Suppose that $\Delta ABC \cong \Delta DEF$, $m\angle A = 45, m\angle F = 55$, find $m\angle B$

17. Given: $\overline{WX} \cong \overline{YX}$, Z is the midpoint of $\overline{WY}$

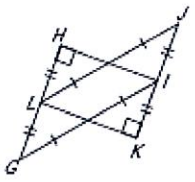
Prove: $\Delta WXZ \cong \Delta YXZ$



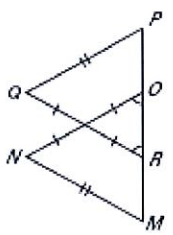
Statements	Reasons

Decide whether or not there is enough information to prove the two triangles congruent. If so, tell which theorem you would use to do.

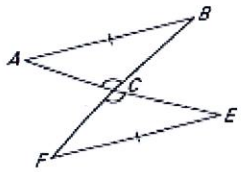
18. $\Delta GHI, \Delta JKL$



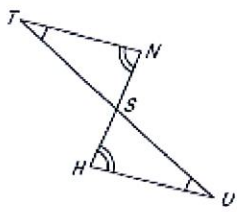
19. $\Delta MNO, \Delta PQR$



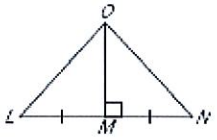
20. $\Delta ABC, \Delta FEC$



21. $\Delta TNS \cong \Delta UHS$



22. Given: $\overline{OM} \perp \overline{LN}, \overline{ML} \cong \overline{MN}$
Prove: $\Delta OML \cong \Delta OMN$



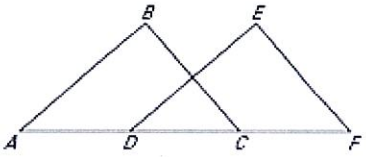
Statements	Reasons

State the third congruence statement that must be true in order to prove the two triangles congruent by the given Theorem or Postulate.

23. **GIVEN:** $\overline{BC} \cong \overline{ED}, \overline{AC} \cong \overline{FD}$. ? $\cong$?
Use the SAS Congruence Postulate.

24. **GIVEN:** $\overline{BC} \cong \overline{ED}$, $\angle B$ is a right angle and $\angle B \cong \angle E$. ? $\cong$?
Use the HL Congruence Theorem.

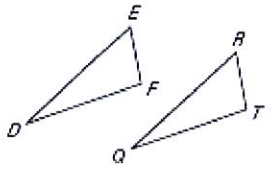
25. **GIVEN:** $\overline{AB} \cong \overline{FE}, \overline{AC} \cong \overline{FD}$. ? $\cong$?
Use the SSS Congruence Postulate.



26. **GIVEN:** $\angle D \cong \angle Q, \angle F \cong \angle T$. ? $\cong$?
Use the AAS Congruence Theorem.

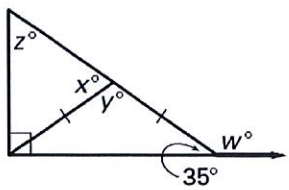
27. **GIVEN:** $\overline{DE} \cong \overline{QR}, \angle D \cong \angle Q$. ? $\cong$?
Use the SAS Congruence Postulate.

28. **GIVEN:** $\angle E \cong \angle R, \overline{EF} \cong \overline{RT}$. ? $\cong$?
Use the ASA Congruence Postulate.

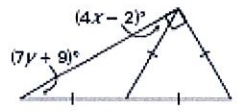


Find the value of each variable.

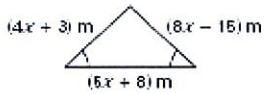
29.



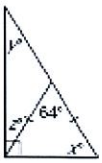
30.



31.



32.



Find the new point after the translation.

33. Point on image: (8, 7); translation: $(x, y) \rightarrow (x - 3, y - 1)$

34. Point on image: (6, 2); translation: $(x, y) \rightarrow (x + 2, y - 5)$

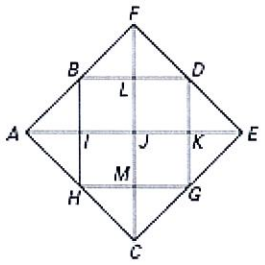
35. Point on image: (−13, 2); translation: $(x, y) \rightarrow (x - 7, y + 4)$

State the segment or triangle that represents the new image.

36. 90° counterclockwise rotation of $\overline{MG}$ about J

37. 90° clockwise rotation of $\triangle HGC$ about J

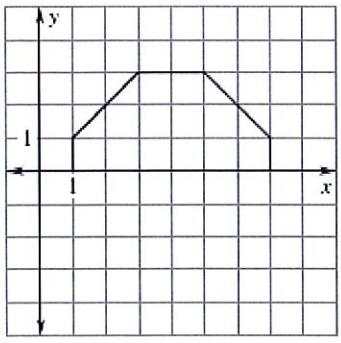
38. 180° clockwise rotation of $\overline{HI}$ about J



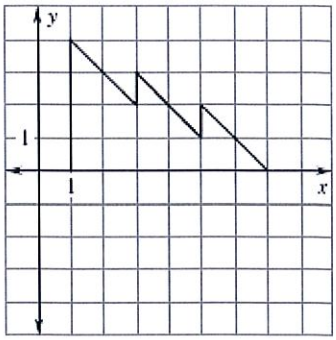
39. 180° counterclockwise rotation of $\triangle BFL$ about J

Use a reflection in the x-axis to draw the other half of the figure.

40.



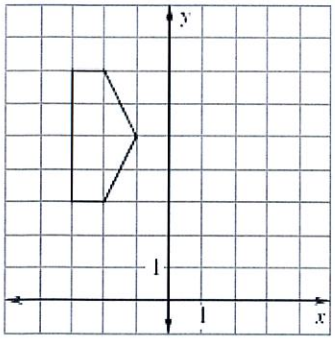
41.



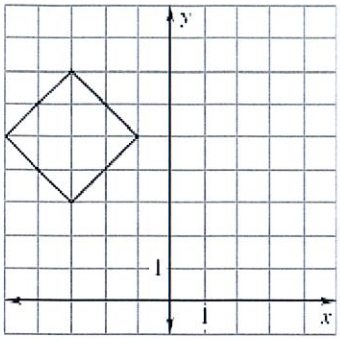
42. What happens to the coordinates when we reflect over the x –axis?

Use a reflection in the y-axis to draw the other half of the figure.

43.



44.

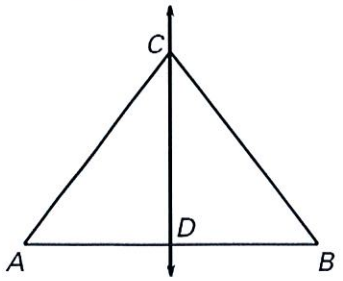


45. What happens to the coordinates when we reflect over the y-axis?

Geometry CP Name_____

Chapter 5 Review

Use the diagram shown. $\overleftrightarrow{CD}$ ***is a perpendicular bisector of*** $\overline{AB}$



1. What is the relationship between AD and AB?

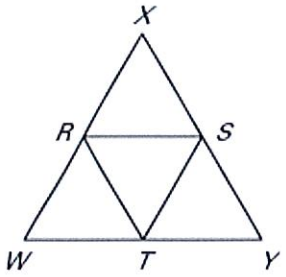
2. What is the relationship between ∠ADC and ∠BDC?

3. What is the relationship between AC and CB?

4. **True or False** because $\overleftrightarrow{CD}$ is the Perpendicular bisector of $\overline{AB}$, $\overline{AC} \cong \overline{AD}$

Use ΔWXY ***, where R, S, and T are midpoints of the sides.***

5. $\overline{RS}$ //_____ 6. $\overline{ST}$ //_____



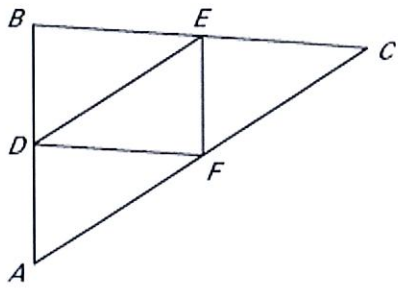
7. If TY = 4, then RS = _____

8. If RT = 7, then XY= _____

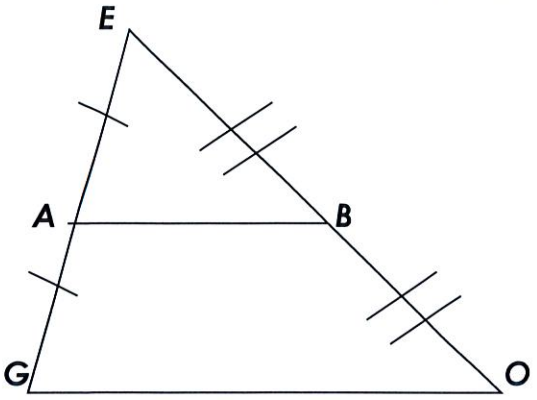
Use the diagram of ΔABC ***where D, E, and F are the midpoints of the sides.***

9. If FE = 6.5x – 10 and AB = 3x + 20, then AB =

10. If DF = 3.5x + 6 and BC = 3x + 36, then DF =



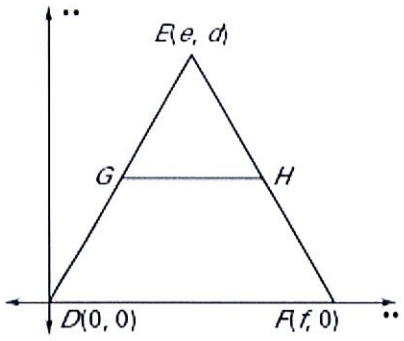
11. Find the value of x and y. $AE = 7y,\ AB = 2x + 8,\ GA = 3x + 11, GO = 12x + 4y.$



Write a coordinate proof for the following.

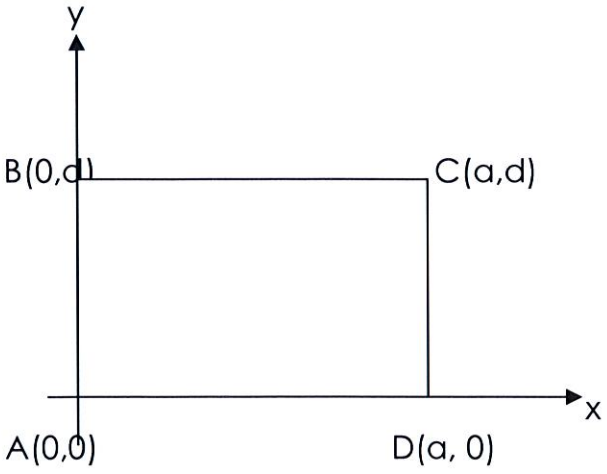
12. Given: G is the midpoint of $\overline{DE}$
H is the midpoint of $\overline{EF}$

Prove: GH = $\frac{1}{2}$DF



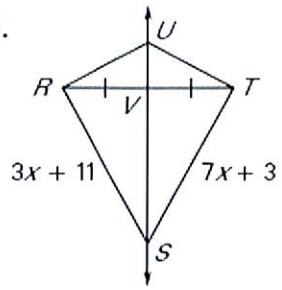
Write a coordinate proof for the following.

13. For the rectangle below show that AB = CD and BC // AD.

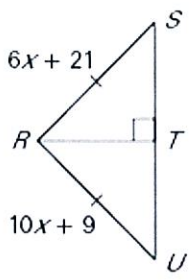


Find the length of $\overline{RS}$

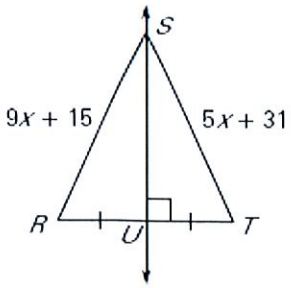
14.



15.



16.



Use the diagram. $\overline{DE}$ ***is the perpendicular bisector of*** $\overline{AC}$***. Find the indicated measure.***

17. Find AB

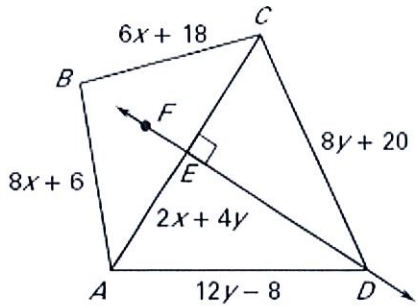
18. Find AE

19. Find AD

20. Find BC

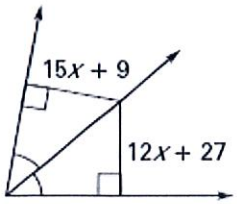
21. Find AC

22. Find CD

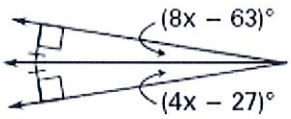


Find the value of x.

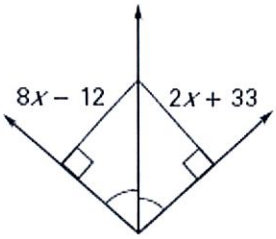
23.



24.

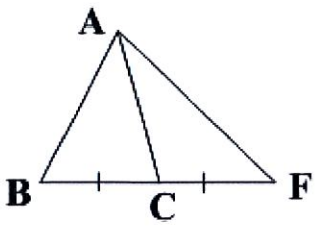


25.

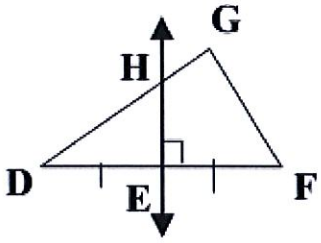


In #26-29, name the segment.

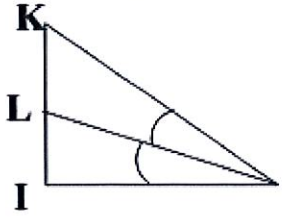
26. $\overline{AC}$



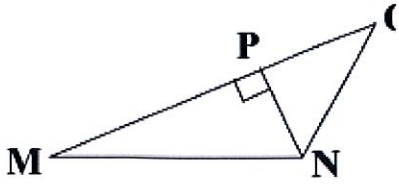
27. $\overline{HE}$



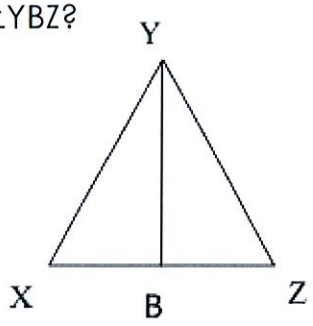
28. $\overline{JL}$



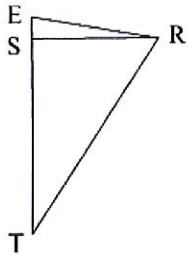
29. $\overline{PN}$



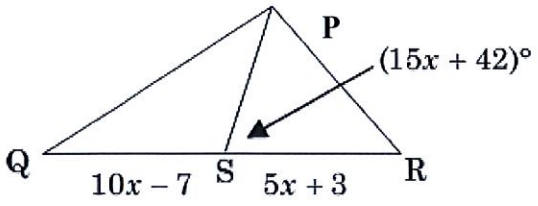
30. $\overline{YB}$ is an altitude of $\triangle XYZ$ and m $\angle YBZ = (6x - 6)°$. Find the value of x. What is the measure of $\angle YBZ$?



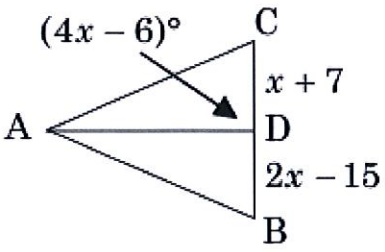
31. $\overline{RS}$ is an altitude of $\triangle RTE$, m $\angle SRT = (4x - 8)°$ and m $\angle STR = (6x + 13)°$. Find the value of x.



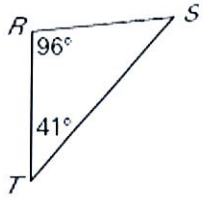
32. Find x and the measure of $\angle PSR$ if $\overline{PS}$ is a median.

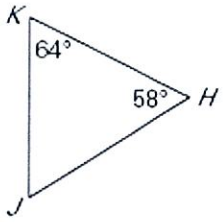


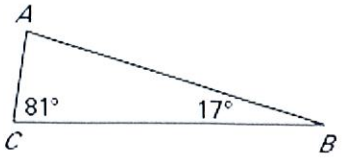
33. Find x, CD, and DB if $\overline{AD}$ is an alititude of $\triangle ABC$.



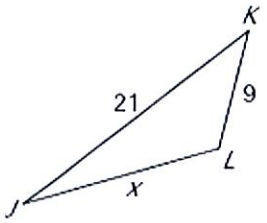
Name the shortest and longest sides of the triangle.

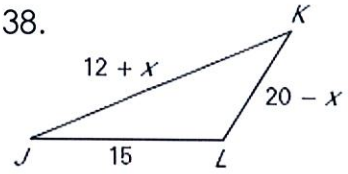
34. 

35. 

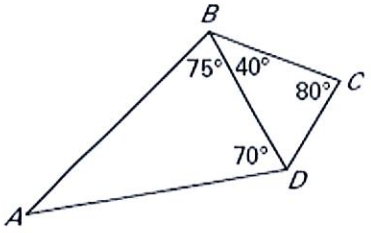
36. 

Find the possible values for x.

37. 

38. 

39. List the sides in order from shortest to longest.



40. ***Describe the possible lengths of the third side of the triangle given the lengths of the other two sides.***

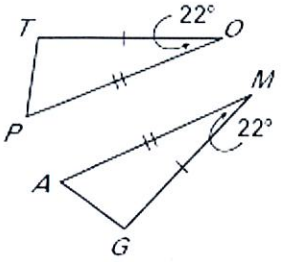
a.) 6, 6

b.) 9, 5

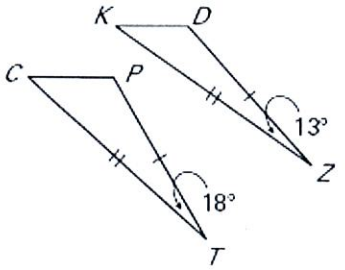
c.) 11, 6

Complete with <, > or =

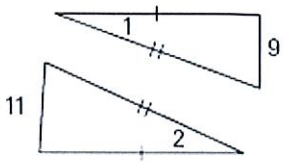
41. TP _____ AG



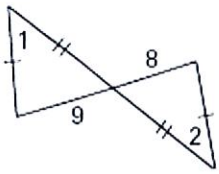
42. KD _____CP



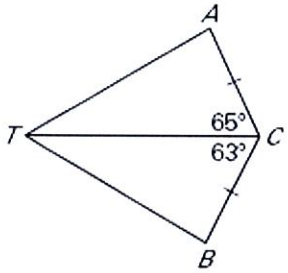
43. m <1 _____m < 2



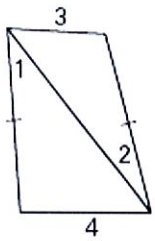
44. m < 1 _____ m < 2



45. AT _____BT

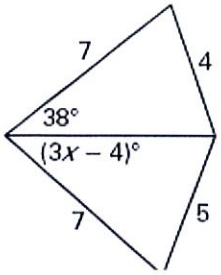


46. m < 1 _____ m < 2

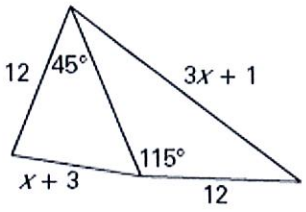


Use the Hinge Theorem or its converse and properties of triangles to write and solve an inequality to describe a restriction on the value of x.

47.



48.



Geometry CP Name_____

Chapter 6 Review

The perimeter and the ratio of length to width of a rectangle are given. Find the length and width of the rectangle.

1. Perimeter = 132 cm
   $l : w = 7:4$

2. Perimeter = 280 ft
   $l : w = 11:9$

The measures of the angles of a triangle are in the extended ratio given. Find the measures of the angles of the triangle.

3. 3: 7: 10

4. 7:16:22

Solve the following proportions.

5. $\frac{x}{16} = \frac{24}{12}$

6. $\frac{3}{11} = \frac{27}{x}$

7. $\frac{20}{6x-1} = \frac{8}{14}$

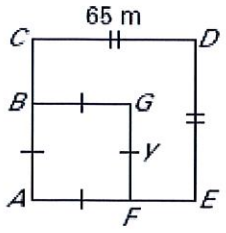
8. $\frac{19}{32} = \frac{7d+3}{15d-11}$

9. $\frac{x}{111} = \frac{5x-28}{333}$

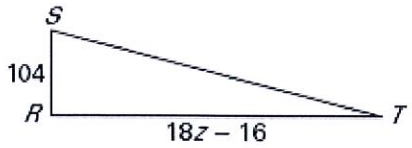
10. $\frac{4x}{6x+4} = \frac{x}{25}$

Use the given ratio and information in the figure to find the value of the variable(s)

11. $CD:AB = 5:3$



12. $RS:RT = 13:25$



Find the geometric mean of the following numbers.

13. 7 and 28

14. 4 and 12

15. 15 and 45

Complete the statements below

16. If $\frac{a}{x}=\frac{b}{5}$ then $\frac{a}{b}=?$

17. If $\frac{7}{12}=\frac{31}{y}$, then $\frac{19}{12}=?$

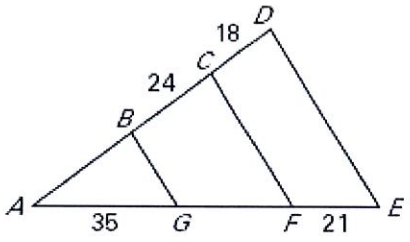
18. If $\frac{z}{x}=\frac{y}{c}$, then $\frac{c}{y}=?$

19. If $\frac{3}{4}=\frac{5}{x+2}$ then $\frac{7}{4}=?$

In the diagram, $\frac{AB}{CD}=\frac{AG}{FE}$ and $\frac{AB}{AC}=\frac{AG}{AF}$. Find the unknown length.

20. Find AB

21. Find GF



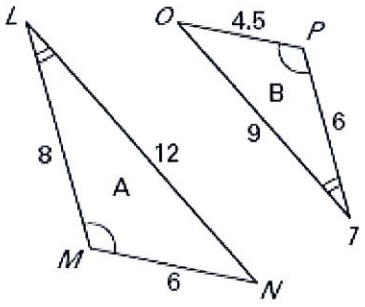
The length of a feature in a scale model is given along with the corresponding length of the actual object. Find the scale of the model.

22. Length in model: 6.5 inches; Actual length: 91 inches

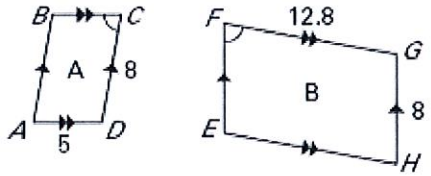
23. Length in model: 26 centimeters; Actual length: 3.25 millimeters

Determine whether the polygons are similar. If they are, write a similarity statement and find the scale factor of Figure A to Figure B.

24.



25.



In the diagram at the right, quadrilateral BCDE~WXYZ

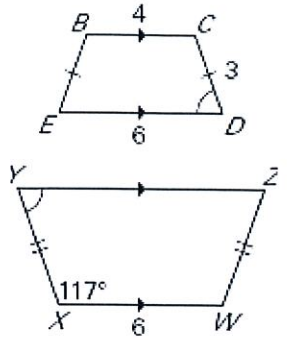
26. Find the scale factor of quad. BCDE to quad. WXYZ

27. Find the scale factor of quad WXYZ to quad. BCDE

28. Find XY

29. Find m<C

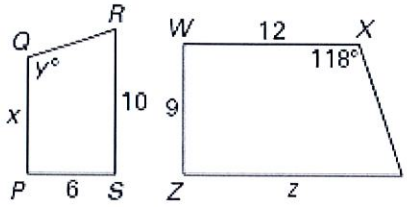
30. Find the perimeter of quad. WXYZ



In the diagram, PQRS ~ WXYZ.

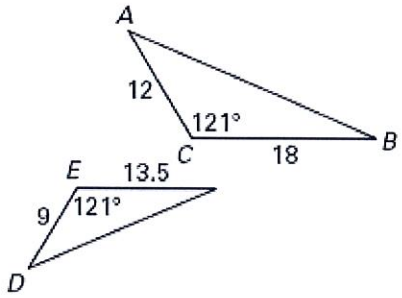
31. Find the scale factor of PQRS to WXYZ

32. Find the values of x, y and z

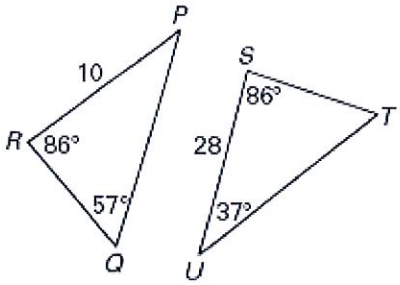


Determine whether the two triangles are similar. If they are similar, write a similarity statement.

33.

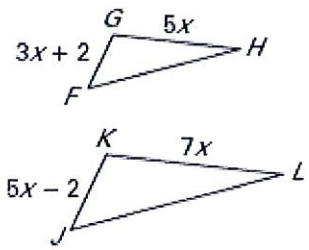


34.

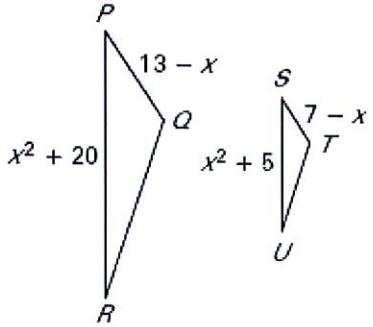


Find all possible values for x in the similar triangles.

35. $\triangle FGH \sim \triangle JKL$

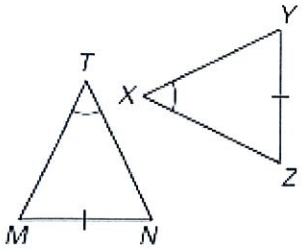


36. $\triangle PQR \sim \triangle STU$

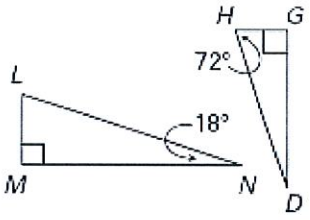


Determine whether the triangles can be proved similar. If they are similar, write a similarity statement.

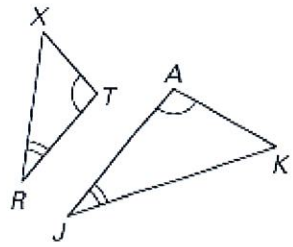
37.



38.

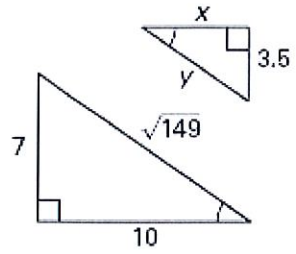


39.

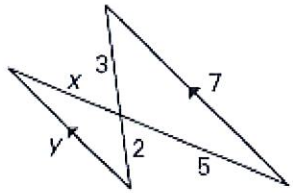


If possible, find the values of the variables.

40.

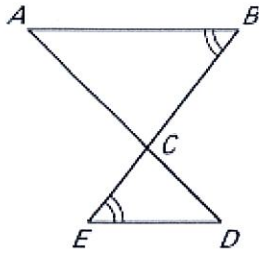


41.

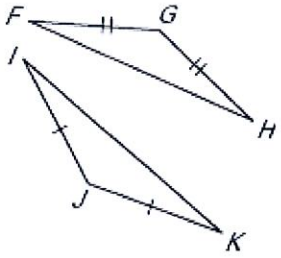


Are the triangles similar?

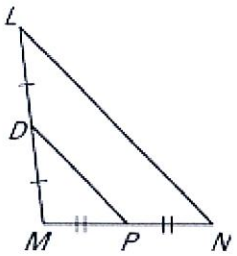
42.



43.

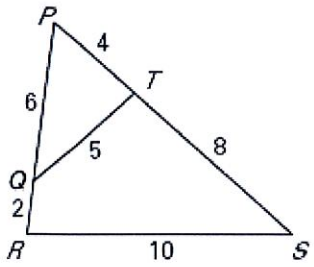


44.

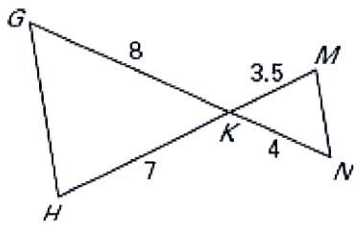


Show that the triangles are similar and write a similarity statement.

45.



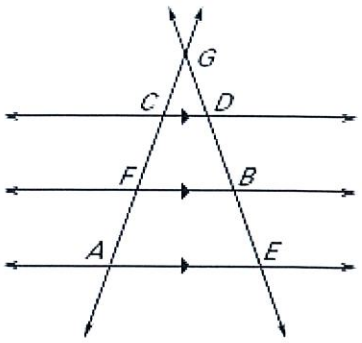
46.



Use the figure to complete the proportion.

47. $\frac{GC}{CF} = \frac{?}{DB}$

48. $\frac{AF}{FC} = \frac{?}{BD}$



49. $\frac{CD}{FB} = \frac{GD}{?}$

50. $\frac{AE}{CD} = \frac{GE}{?}$

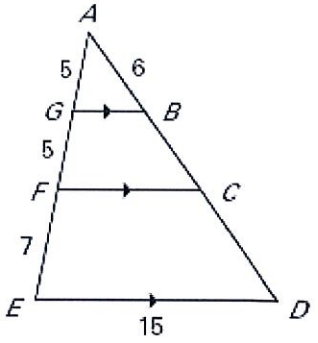
51. $\frac{FG}{AG} = \frac{FB}{?}$

52. $\frac{GD}{GE} = \frac{?}{AE}$

Determine the length of each segment.

53. $\overline{BC}$

54. $\overline{FC}$

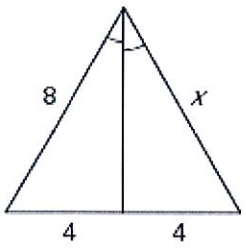


55. $\overline{GB}$

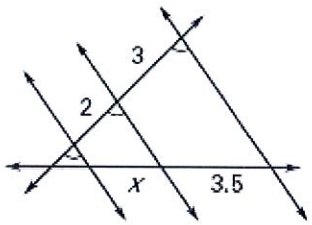
56. $\overline{CD}$

Find the value of x.

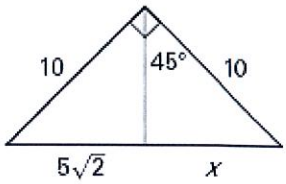
57.



58.



59.

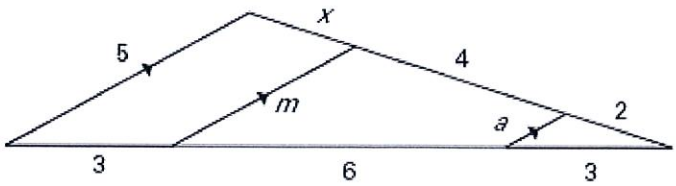


Find the value of the variable.

60. x

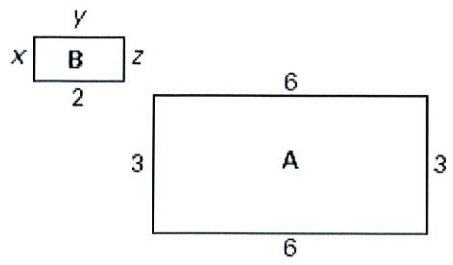
61. m

62. a

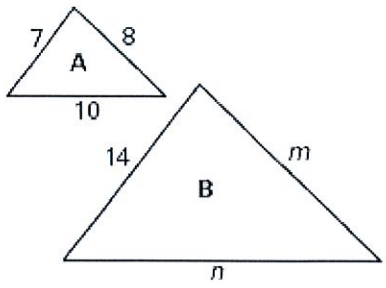


Determine whether the dilation from Figure A to Figure B is a reduction or an enlargement. Then, find the values of the variable.

63.

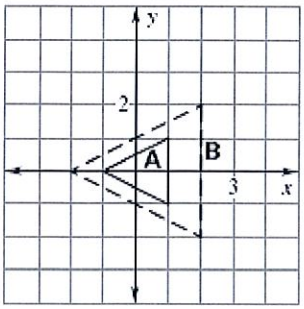


64.

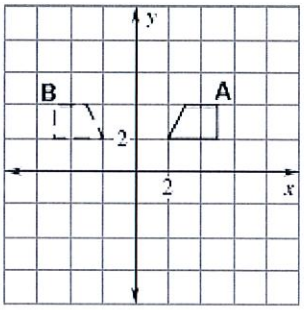


Determine whether the transformation from Figure A to Figure B is a translation, reflection, rotation, or dilation.

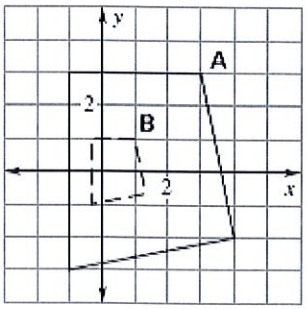
65.



66.

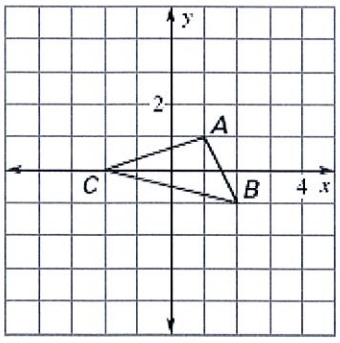


67.



Draw a dilation of the figure using the given scale factor.

68. $k = 2$



69. $k = \frac{1}{4}$