

**CHAPTER 1**  
**Chapter Test B**

For use after Chapter 1

Name \_\_\_\_\_  
Study-Guide: CH: 1-6 (MIDTERM)  
Date \_\_\_\_\_  
REVIEW  
STUDY

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

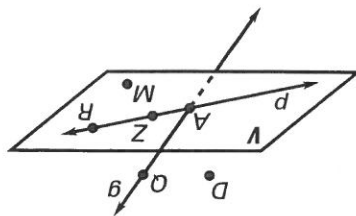
11. \_\_\_\_\_

12. \_\_\_\_\_

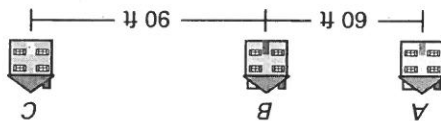
13. \_\_\_\_\_

In Exercises 1-3, use the diagram to decide whether the statement is true or false.

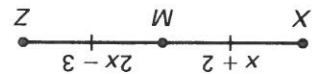
- Point R lies on line g.
- Points A, M, R, and Z are coplanar.
- Points A and Q are collinear.



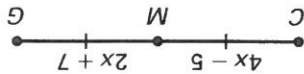
- The diagram shows three houses on a street. Find the distance from House A to House C.



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

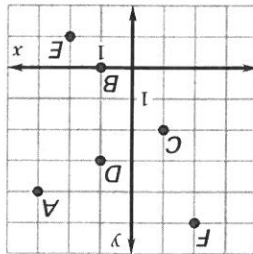


5. XM



6. CG

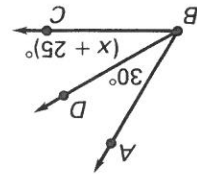
Find the exact distance between the points.



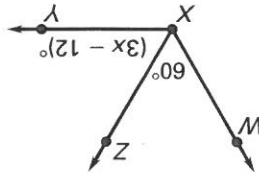
- A and B
- C and F
- D and E

Use the given information to find the value of x.

10.  $\angle ABD \cong \angle DBC$



11.  $\angle WXZ \cong \angle ZXY$



- Given that  $\angle 1$  is a complement of  $\angle 2$  and  $m\angle 2 = 17^\circ$ , find  $m\angle 1$ .
- Given that  $\angle 3$  is a supplement of  $\angle 4$  and  $m\angle 3 = 46^\circ$ , find  $m\angle 4$ .

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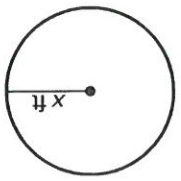
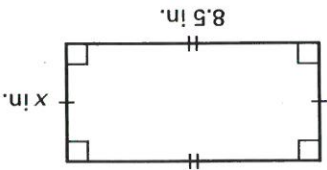
**Answers**

14. Two angles form a linear pair. The measure of one angle is four times greater than the measure of the other angle. Find the measure of each angle.
15. Two angles form a linear pair. The measure of one angle is six more than twice the measure of the other angle. Find the measure of each angle.

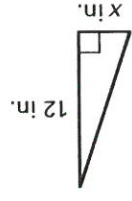
**Tell whether the statement is always, sometimes, or never true.**

16. A pentagon is a plane figure.
17. A triangle is concave.
18. A hexagon has six congruent sides.
19. A quadrilateral is equiangular but not equilateral.

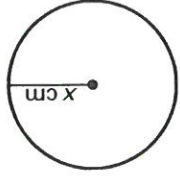
**Use the given information to find the value of  $x$ . Use 3.14 for  $\pi$ .**

20.  $C = 56.52$  feet
- 
21.  $P = 25$  inches
- 
22. \_\_\_\_\_
23. \_\_\_\_\_
24. \_\_\_\_\_
25. \_\_\_\_\_

22.  $A = 24$  square inches

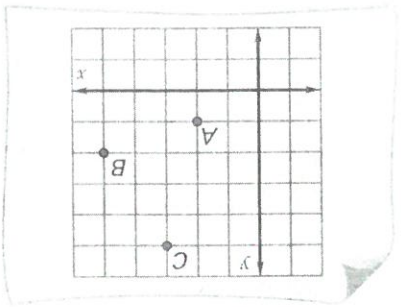


23.  $A = 28.26$  square centimeters



24. A table is 6 feet long and 4 feet wide. A table cloth covers the entire table and there is 1 foot of extra cloth hanging over each edge of the table. What is the area of the table cloth?

25. Joe ran from Point A to Point C and Mike ran from Point B to Point C. About how much farther did Joe run than Mike? Round your answer to the nearest tenth. The distance between consecutive grid lines represents 1 yard.



**CHAPTER 3**  
**Chapter Test B**

For use after Chapter 3

Identify the pairs of angles as corresponding, alternate interior, alternate exterior, consecutive interior, or vertical angles.

1.  $\angle 1$  and  $\angle 8$

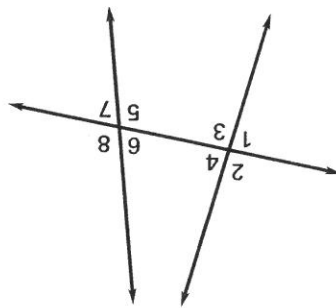
2.  $\angle 4$  and  $\angle 5$

3.  $\angle 4$  and  $\angle 6$

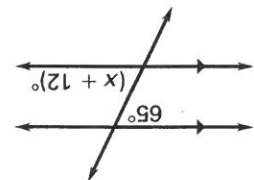
4.  $\angle 2$  and  $\angle 3$

5.  $\angle 3$  and  $\angle 7$

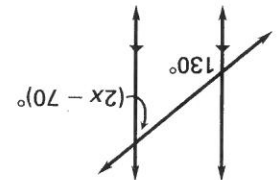
6.  $\angle 2$  and  $\angle 7$



Find the value of  $x$ .

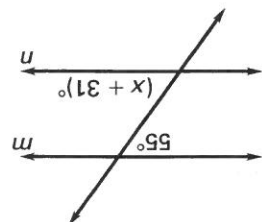


7.

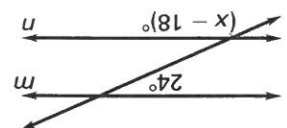


8.

Find the value of  $x$  that makes  $m \parallel n$ .



9.



10.

Tell whether the lines through the given points are parallel, perpendicular, or neither.

11. Line 1:  $(1, 2), (2, 0)$

12. Line 1:  $(-2, 1), (1, -1)$

Line 2:  $(0, -1), (-2, -2)$

Line 2:  $(1, 3), (4, 1)$

13. Line 1:  $(0, 1), (1, 4)$

14. Line 1:  $(-1, 1), (1, 3)$

Line 2:  $(3, 2), (6, 3)$

Line 2:  $(2, -1), (4, 1)$

15.

Quadrilateral  $ABCD$  has vertices  $A(1, 4), B(3, 3), C(1, -1), D(-1, 0)$ . Find the slopes of the sides and the lengths of the sides. What can you prove about quadrilateral  $ABCD$ ?

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\_\_\_\_\_

15. \_\_\_\_\_

14. \_\_\_\_\_

13. \_\_\_\_\_

12. \_\_\_\_\_

11. \_\_\_\_\_

10. \_\_\_\_\_

9. \_\_\_\_\_

8. \_\_\_\_\_

7. \_\_\_\_\_

6. \_\_\_\_\_

5. \_\_\_\_\_

4. \_\_\_\_\_

3. \_\_\_\_\_

2. \_\_\_\_\_

1. \_\_\_\_\_

Answers

Name \_\_\_\_\_ Date \_\_\_\_\_

**CHAPTER 3**

**Chapter Test B**

continued

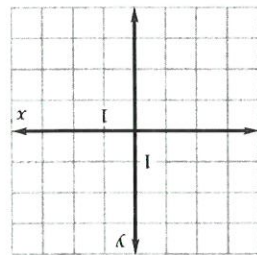
For use after Chapter 3

Name \_\_\_\_\_

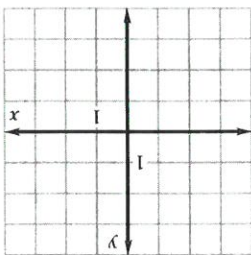
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Graph the equation.

16.  $y = -\frac{1}{4}x - 1$



17.  $y = \frac{3}{2}x + \frac{1}{2}$



**Answers**

16. See left.

17. See left.

Write an equation of the line that passes through point  $P$  and is parallel to the line with the given equation.

18.  $P(-1, 3), y = 4x - 2$

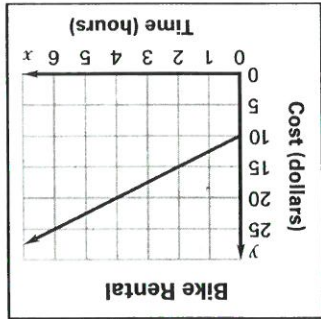
19.  $P(2, 4), y = -3x$

Write an equation of the line that passes through point  $P$  and is perpendicular to the line with the given equation.

20.  $P(0, 2), y = \frac{1}{2}x + 1$

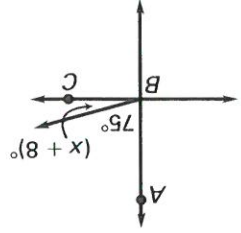
21.  $P(4, 3), y = -x$

22. The graph models the total cost of renting a bike. Write an equation of the line. Explain the meaning of the slope and the  $y$ -intercept of the line.

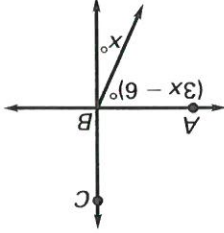


- 23. \_\_\_\_\_
- 24. \_\_\_\_\_
- 25. \_\_\_\_\_
- 26. \_\_\_\_\_

In the diagram,  $\vec{AB} \perp \vec{BC}$ . Find the value of  $x$ .



23. \_\_\_\_\_

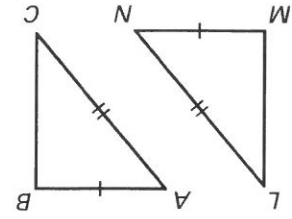


24. \_\_\_\_\_

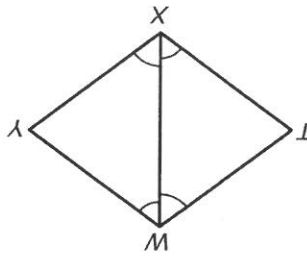
Find the taxicab distance between the two points.

25.  $(7, -5), (-1, 4)$

26.  $(-3, 9), (0, -1)$



13.  $\triangle LMN \cong \triangle CBA$  by HL.



14.  $\triangle TWX \cong \triangle YWX$  by ASA.

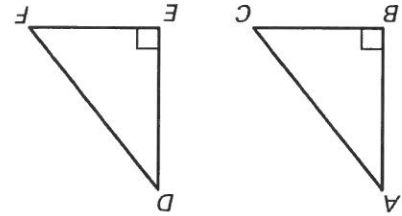
Decide whether the triangles can be proven congruent by the given postulate or theorem.

12. Given:  $\angle A \cong \angle D$ ,  $\angle C \cong \angle F$ ; Use the ASA Congruence Postulate.

11. Given:  $\angle A \cong \angle D$ ,  $\angle B \cong \angle E$ ; Use the AAS Congruence Theorem.

10. Given:  $\overline{AB} \cong \overline{DE}$ ,  $\overline{AC} \cong \overline{DF}$ ; Use the SSS Congruence Postulate.

9. Given:  $\overline{BC} \cong \overline{EF}$ ; Use the Hypotenuse-Leg Congruence Theorem.



State the congruence that is needed to prove  $\triangle ABC \cong \triangle DEF$  using the given postulate or theorem.

7. \_\_\_\_\_

6. \_\_\_\_\_

5. \_\_\_\_\_

4. \_\_\_\_\_

3. \_\_\_\_\_

2. \_\_\_\_\_

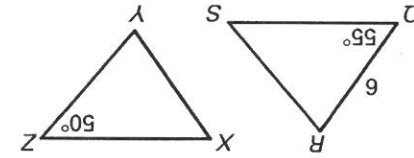
1. \_\_\_\_\_

8.  $m\angle S$

7.  $m\angle X$

6.  $XY$

5.  $m\angle R$



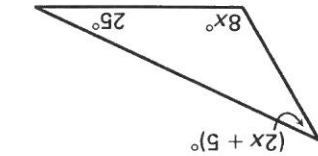
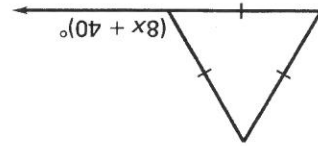
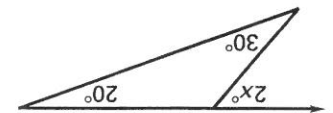
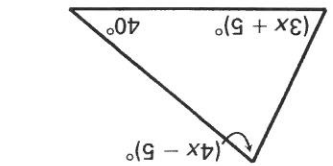
In the diagram,  $\triangle QRS \cong \triangle XYZ$ . Find the measure.

3. \_\_\_\_\_

4. \_\_\_\_\_

2. \_\_\_\_\_

1. \_\_\_\_\_



Find the value of  $x$ . Then classify the triangle by its angles.

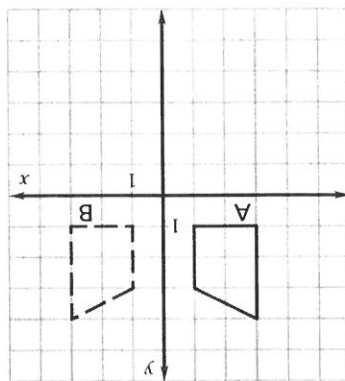
Answers

Chapter Test B

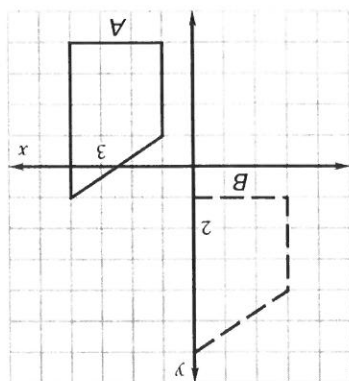
CHAPTER 4

For use after Chapter 4

Name \_\_\_\_\_  
Date \_\_\_\_\_



20.

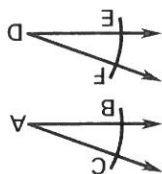


21.

Use coordinate notation to describe the transformation from Figure A to Figure B.

Use coordinate notation to describe the transformation from Figure A to Figure B.

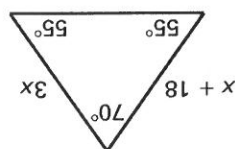
Statements	Reasons



GIVEN:  $\overline{AB} \cong \overline{DE}$ ,  $\overline{AC} \cong \overline{DF}$ ,  $\overline{BC} \cong \overline{EF}$   
 PROVE:  $\angle D \cong \angle A$

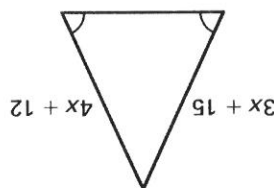
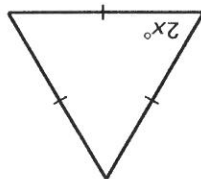
is valid.

19. Write a proof to justify that the construction for copying an angle



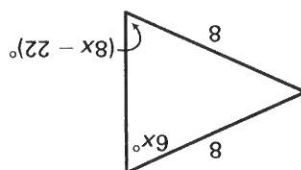
17.

18.



15.

16.



Find the value of  $x$ .

Answers

- 15. \_\_\_\_\_
- 16. \_\_\_\_\_
- 17. \_\_\_\_\_
- 18. \_\_\_\_\_
- 19. See left.
- 20. \_\_\_\_\_
- 21. \_\_\_\_\_

**CHAPTER 4**  
**Chapter Test B**  
 continued

For use after Chapter 4

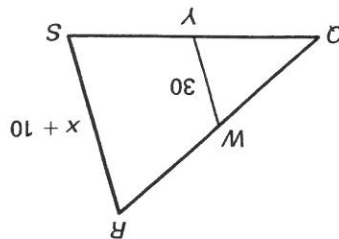
Name \_\_\_\_\_ Date \_\_\_\_\_

**CHAPTER 5**  
**Chapter Test B**

For use after Chapter 5

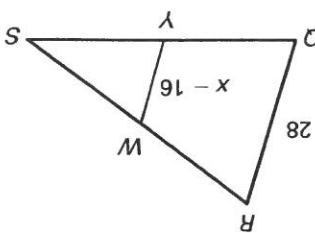
Name \_\_\_\_\_ Date \_\_\_\_\_

**WY** is the midsegment of  $\triangle QRS$ . Find the value of  $x$ .



1.

2.



2.

3.

4.

5.

See left.

6.

See left.

7.

8.

Place the figure in a coordinate plane in a convenient way.

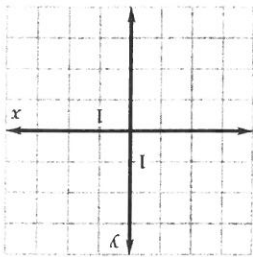
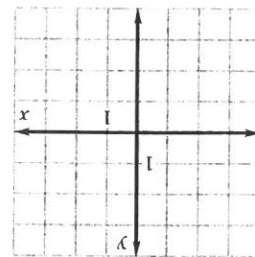
Give the coordinates of each vertex.

5. Isosceles right triangle:

Leg length is 3.

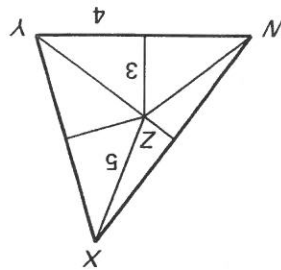
6. Rectangle: Length is 3 and

width is 2.

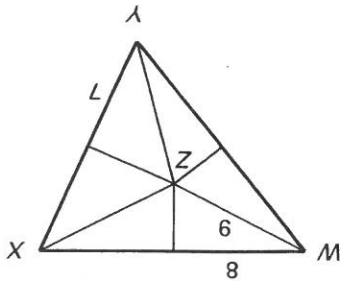


In the diagram, the perpendicular bisectors of  $\triangle WXY$  meet at point  $Z$ . Find the indicated measure.

7.  $WZ$



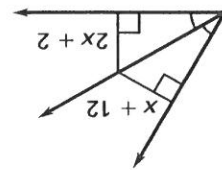
8.  $ZY$





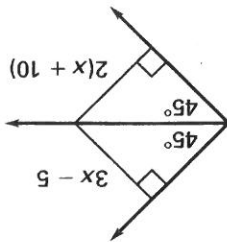
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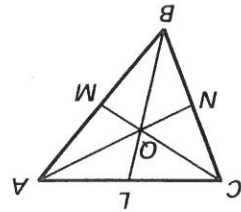


9.

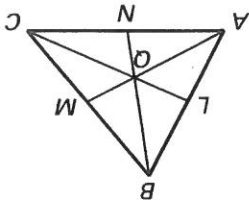
Use the information in the diagram to find  $x$ .



10.

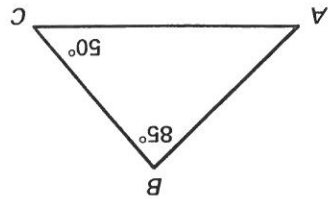


11.  $\overline{QC} = 12$ . Find  $\overline{QM}$ .

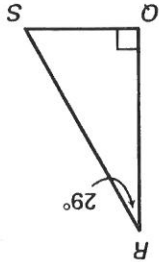


12.  $\overline{QC} = 6$ . Find  $\overline{QL}$ .

List the unknown sides in order from smallest to largest.



13.



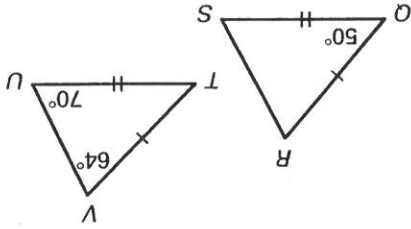
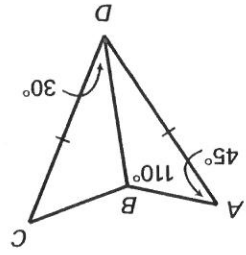
14.

15. A triangle has one side of length 10 and another of length 6. Describe the possible lengths of the third side.

Complete with  $<$ ,  $>$ , or  $=$ .

16.  $\overline{AB} \underline{\hspace{1cm}} \overline{BC}$

17.  $\overline{RS} \underline{\hspace{1cm}} \overline{VU}$



18. Suppose you wanted to prove the statement "If  $x + y < 20$  and  $y = 5$ , then  $x > 15$ ." What temporary assumption could you make to prove the conclusion indirectly?

Answers

- 18. \_\_\_\_\_
- 17. \_\_\_\_\_
- 16. \_\_\_\_\_
- 15. \_\_\_\_\_
- 14. \_\_\_\_\_
- 13. \_\_\_\_\_
- 12. \_\_\_\_\_
- 11. \_\_\_\_\_
- 10. \_\_\_\_\_
- 9. \_\_\_\_\_



# CHAPTER : 6 - GEOMETRY

NAME: \_\_\_\_\_

Simplify the ratio.

1.  $\frac{3 \text{ gallons}}{27 \text{ quarts}}$

2.  $\frac{500 \text{ mm}}{2.5 \text{ m}}$

3.  $\frac{150 \text{ lb}}{100 \text{ oz}}$

Solve the proportion.

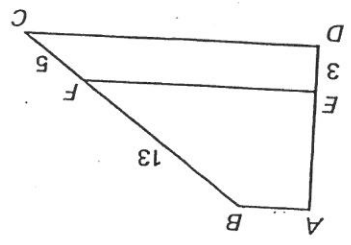
4.  $\frac{13}{6} = \frac{91}{3x}$

5.  $\frac{x}{x+6} = \frac{4}{5}$

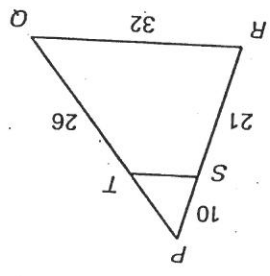
6.  $\frac{10}{3} = \frac{18x-6}{5x+1}$

Use the diagram and the given information to find the unknown length.

7. Given  $\frac{BC}{AD} = \frac{DE}{AE}$ , find AE.

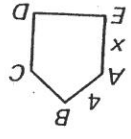


8. Given  $\frac{PR}{RQ} = \frac{PS}{ST}$ , find ST.

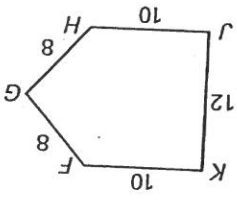


In the diagram,  $ABCDE \sim FGHIJK$ .

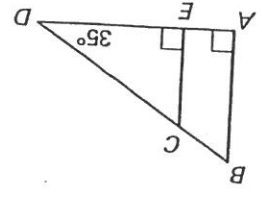
9. Find the value of x.



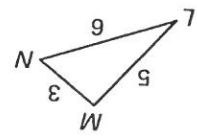
10. Find the perimeter of ABCDE.



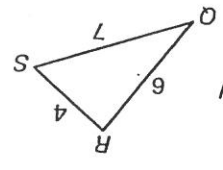
Determine whether the triangles are similar. If so, write a similarity statement and the postulate or theorem that justifies your answer.



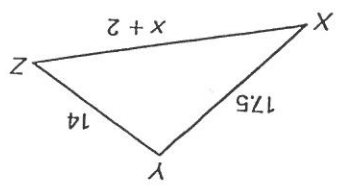
11. B



12.



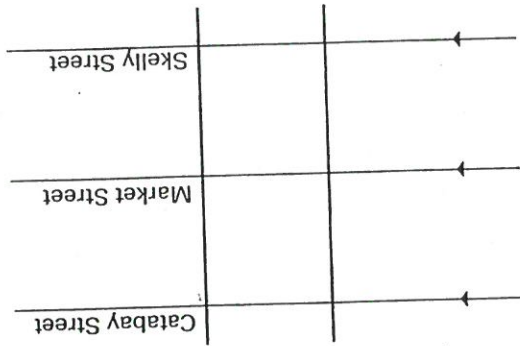
13. Determine the value of x that makes  $\triangle ABC \sim \triangle XYZ$ .



14.

- 14. \_\_\_\_\_
- 13. \_\_\_\_\_
- 12. \_\_\_\_\_
- 11. \_\_\_\_\_
- 10. \_\_\_\_\_
- 9. \_\_\_\_\_
- 8. \_\_\_\_\_
- 7. \_\_\_\_\_
- 6. \_\_\_\_\_
- 5. \_\_\_\_\_
- 4. \_\_\_\_\_
- 3. \_\_\_\_\_
- 2. \_\_\_\_\_
- 1. \_\_\_\_\_

Answers



Catabay Street and Skelly Street on your model?

You are making a scale model of your neighborhood. The distance between two consecutive parallel streets is 200 feet. You use a scale factor of  $\frac{1}{80}$  to build your model. What is the distance between

the width is 4 : 1. Find the length and the width.

The perimeter of a rectangle is 65 inches. The ratio of the length to

the width is 2 : 1. Find the length and the width.

The perimeter of a rectangle is 24 inches. The ratio of the length to

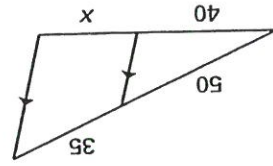
(BONUS)

23)

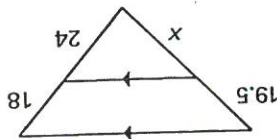
23)

22)

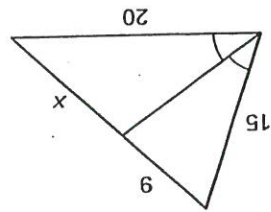
21)



19)

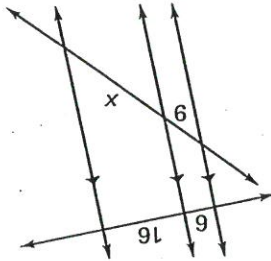


20)

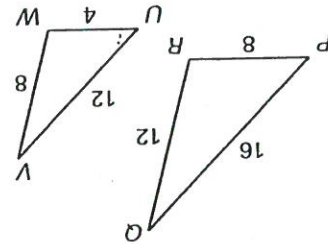


17)

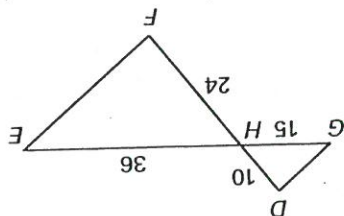
Find the value of x.



18)



15)



16)

Answers

TELL WHETHER THE TRIANGLE ARE SIMILAR. IF THEY ARE GIVE THE SIMILARITY STATEMENT.

- \_\_\_\_\_ 22)
- \_\_\_\_\_ 21)
- \_\_\_\_\_ 20)
- \_\_\_\_\_ 19)
- \_\_\_\_\_ 18)
- \_\_\_\_\_ 17)
- \_\_\_\_\_ 16)
- \_\_\_\_\_ 15)