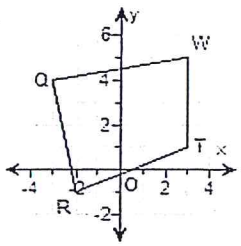
Similarity Unit Review
Chapter 7 Review

Name:_____

1.

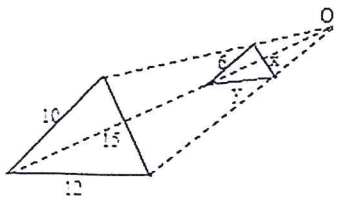
Use the graph at the right. Find the vertices of the image of QRTW for a dilation with center (0,0) and a scale factor of 12.



Q' (-36, 48)

2.

In the following figure, the smaller triangle is the image of the larger triangle under a dilation centered at point O. Find the scale factor and the length of x and y as pictured.

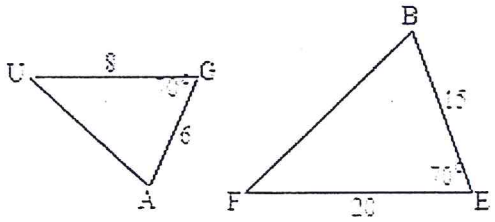


The numbers and letters represent the lengths of the sides of the triangles.

x = 9

y = 7.2

3. Are the triangles similar? If yes, write a similarity statement and explain how you know they are similar.



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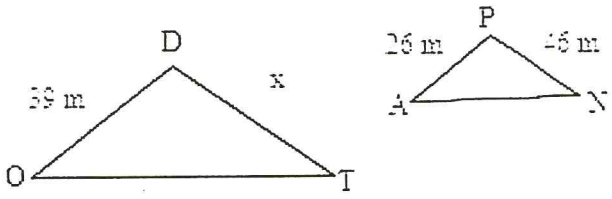
4. Let ΔDOT~ΔPAN. Find the missing side x.



Similar? (Evidence)

GIVEN

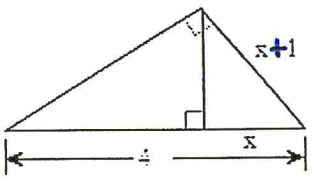
Solving for?

Property:

Equation:

Solve: $x = 69$

5. Find the value of x using the figure to the right.



x = ☐ (Simplify your answer.)

Similar? (Evidence)

Solving for?

Property:

Equation:

Solve: ~~x = 5.83~~ $x = 1$

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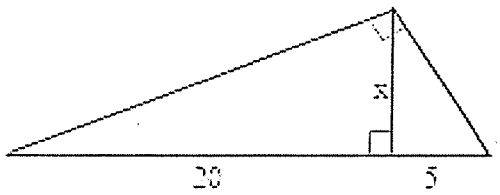
6. Solve for x using the figure to the right.



Similar? (Evidence)

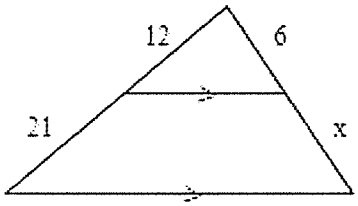
Solving for?

Property:

Equation:

Solve: $X = 10$

7. Using the following diagram, solve for x.



Similar? (Evidence)

Solving for?

Property:

Equation:

Solve: $X = 10.5$

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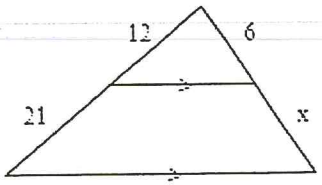
8.

Using the following diagram, solve for x.



Similar? (Evidence)

SAME AS #7

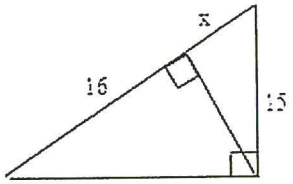
Solving for?

Equation:

Property:

Solve:

9. Find the value of x using the figure to the right.



Similar? (Evidence)

Equation:

Solving for?

Solve: x=9

Property:

10. If a 40-foot tree casts a 16-foot shadow, find the length of the shadow cast by a 26-foot tree.

Draw a picture and solve

Similar? (Evidence)

Equation:

Solving for?

Solve: 10.4 feet

Property:

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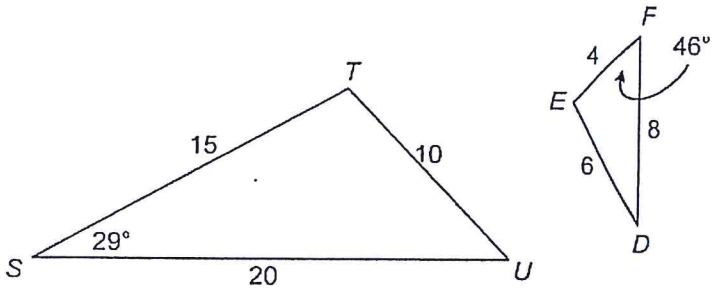
11.

Given ΔSTU and ΔDEF, what is $m\angle U$?



Similar? (Evidence)

Solving for?

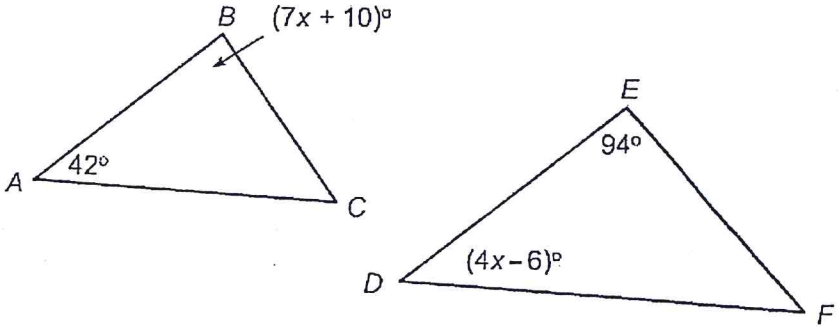
Property:

Equation:

Solve: $m\angle U = 46°$

12.

For what value of x is $\Delta ABC \sim \Delta DEF$?



Solving for?

Property:

Equation:

Solve: $x = 12$