

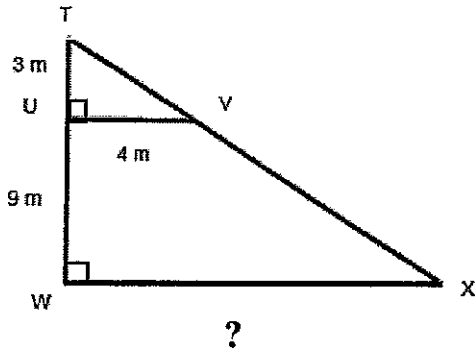
Geometry HW #10

Name: _____

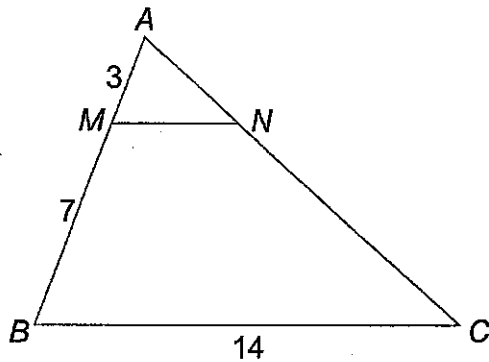
Date: _____

1. What is the length of \overline{WX} ? Show or explain how you got your answer.

(Note: The figure is not drawn to scale)

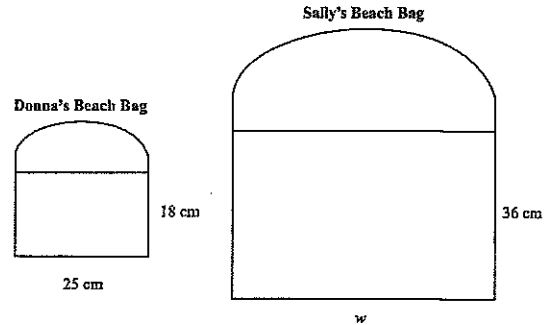


2. Use the triangle below to answer the following question(s).



In $\triangle ABC$ above, \overline{MN} is parallel to \overline{BC} . What is the length of \overline{MN} ?

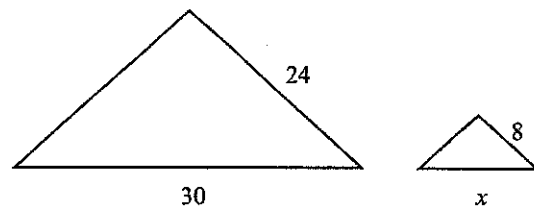
3. Donna's beach bag is similar to her sister Sally's. The figures below show some of the measurements.



Which proportion could be used to find the width of Sally's beach bag?

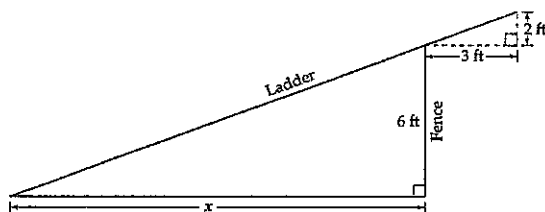
- A. $\frac{18}{36} = \frac{w}{25}$ B. $\frac{18}{25} = \frac{w}{36}$
C. $\frac{25}{36} = \frac{18}{w}$ D. $\frac{36}{w} = \frac{18}{25}$

4. The triangles shown below are similar.



The scale factor from the large triangle to the small triangle is 3:1. What is the length of side x of the smaller triangle?

5. A ladder is placed against a fence that is 6 feet tall. The ladder extends 2 feet above the fence and 3 feet behind the fence.

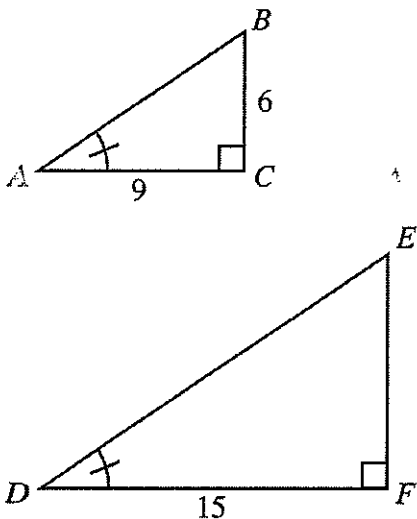


Note: The figure is not drawn to scale.

Which proportion can be used to find the distance (x) between the bottom of the ladder and the bottom of the fence?

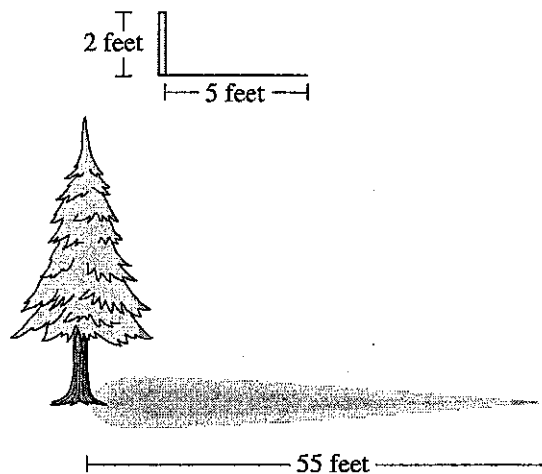
- A. $\frac{x}{6} = \frac{3}{8}$ B. $\frac{x}{6} = \frac{2}{3}$
 C. $\frac{x}{6} = \frac{3}{2}$ D. $\frac{x}{6} = \frac{8}{3}$

6. In the diagram below, $\triangle ABC$ and $\triangle DEF$ are similar triangles with the dimensions shown, in units.



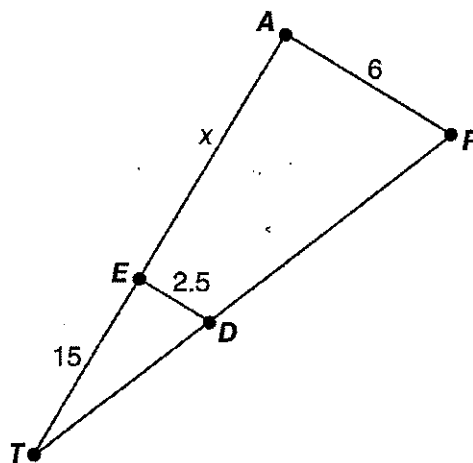
What is the length, in units, of \overline{EF} ?

7. At 4:00 pm on a sunny day, a stick 2 feet tall casts a shadow 5 feet long. At the same time, a tree nearby casts a shadow 55 feet long.



What is the height, in feet, of the tree?

8. Natalie drew this figure on a piece of paper.



If $TAP \sim TED$, what is the value of x?

(Note: This figure is not drawn to scale.)