

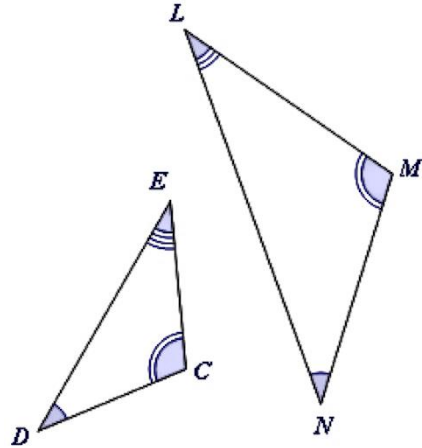
1. Consider the two similar triangles.

a. Match the corresponding angles:

$\angle D$  corresponds to  $\angle$  \_\_\_\_\_

$\angle E$  corresponds to  $\angle$  \_\_\_\_\_

$\angle C$  corresponds to  $\angle$  \_\_\_\_\_



b.  $DC$  corresponds to which side in  $\triangle LMN$ ? \_\_\_\_\_

- A)  $ML$                       B)  $MN$                       C)  $LN$

c.  $EC$  corresponds to which side in  $\triangle LMN$ ? \_\_\_\_\_

- A)  $MN$                       B)  $LN$                       C)  $ML$

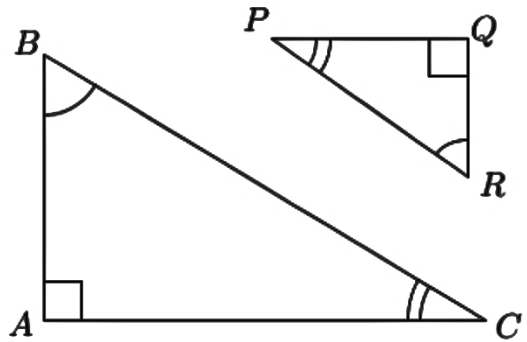
2. Consider the two similar triangles.

a. Match the corresponding angles:

$\angle A$  corresponds to  $\angle$  \_\_\_\_\_

$\angle B$  corresponds to  $\angle$  \_\_\_\_\_

$\angle C$  corresponds to  $\angle$  \_\_\_\_\_



b.  $AB$  corresponds to which side in  $\triangle PQR$ ? \_\_\_\_\_

- A)  $PQ$                       B)  $QR$                       C)  $RP$

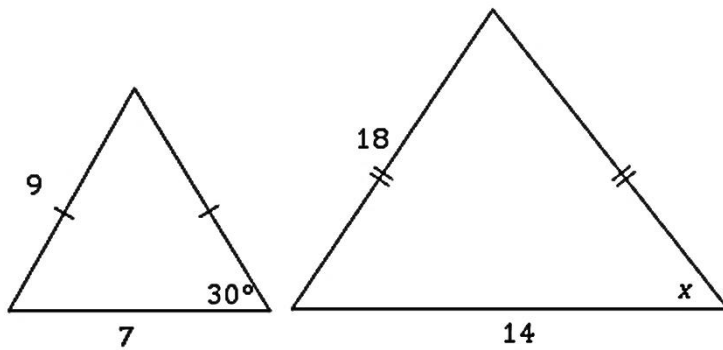
c.  $BC$  corresponds to which side in  $\triangle PQR$ ? \_\_\_\_\_

- A)  $RP$                       B)  $PQ$                       C)  $QR$

3. To enlarge or reduce a shape you must: \_\_\_\_\_
- A) multiply each side by the same factor.
  - B) vary the side lengths and the angles.
  - C) vary the angles but not the side lengths.
  - D) multiply each angle by the same factor.

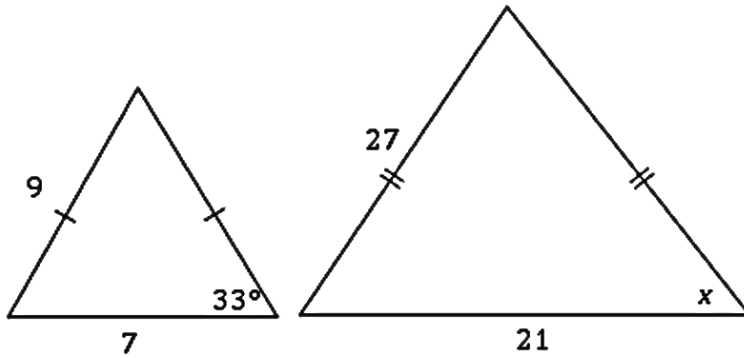
4. If a scale factor of 0.9 is applied to a shape, \_\_\_\_\_  
will the new shape be larger or smaller than the original?
- A) Larger      B) Smaller      C) Unchanged

5. Consider the attached figure below.



- a. What is the value of  $x$ ? \_\_\_\_\_
- A)  $15^\circ$       B)  $30^\circ$       C)  $60^\circ$       D) We need more information.
- b. Give a reason for your answer: \_\_\_\_\_
- A) All matching angles in similar shapes must be equal.
  - B) Base angles in isosceles triangles must be equal.
  - C) All sides in similar shapes must have the same ratio.

6. Consider the attached figure below.

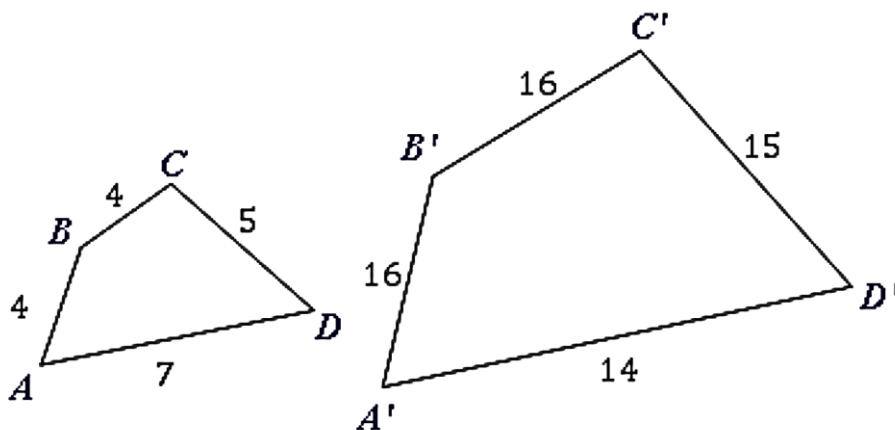


a. What is the value of  $x$ ? \_\_\_\_\_  
 A)  $11^\circ$     B)  $33^\circ$     C)  $99^\circ$     D) We need more information.

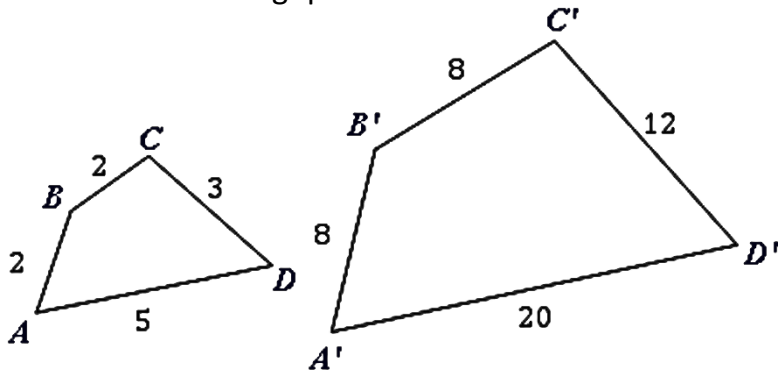
b. Give a reason for your answer: \_\_\_\_\_  
 A) All matching angles in similar shapes must be equal.  
 B) Base angles in isosceles triangles must be equal.  
 C) All sides in similar shapes must have the same ratio.

7. Consider the following quadrilaterals. Is quadrilateral  $A'B'C'D'$  an enlargement of quadrilateral  $ABCD$ ? (Yes or No) \_\_\_\_\_

Explain your answer:



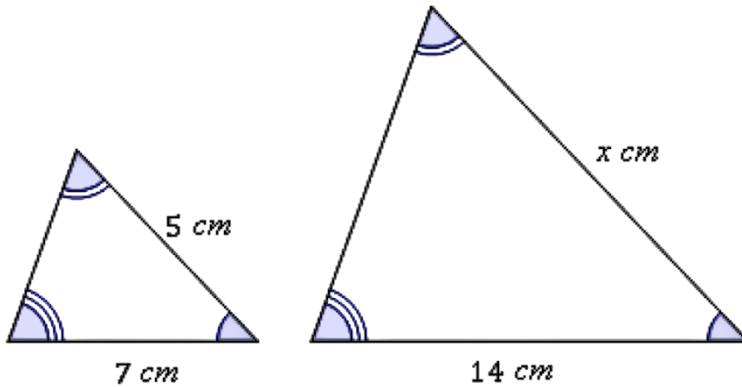
8. Consider the following quadrilaterals.



- a. Is quadrilateral  $A'B'C'D'$  an enlargement of quadrilateral  $ABCD$ ? (Yes or No) \_\_\_\_\_
- b. What is the scale factor? \_\_\_\_\_

Questions 9 – 16: For each pair of similar shapes, determine the scale factor from the left figure to the right figure (you'll want to think about whether it is an enlargement or a reduction). Then determine the value of the variable.

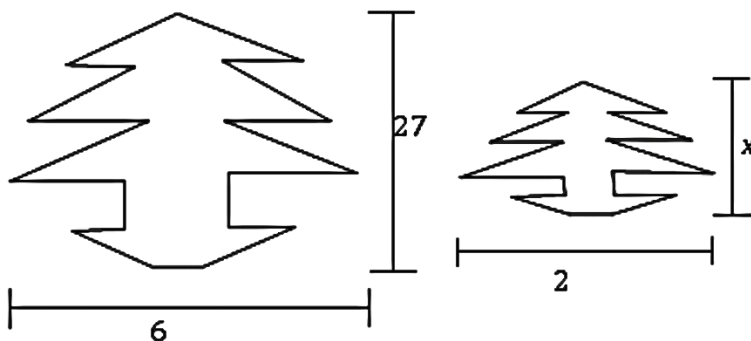
9.



a. Scale Factor: \_\_\_\_\_

b.  $x =$  \_\_\_\_\_

10.

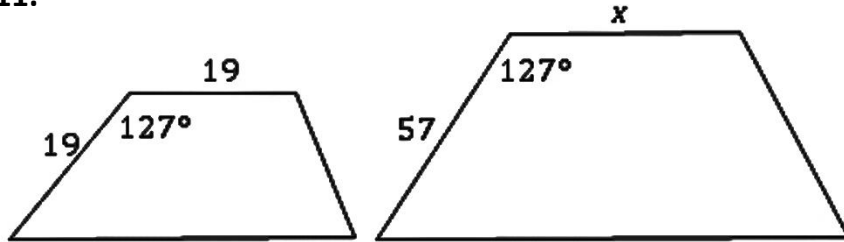


a. Scale Factor: \_\_\_\_\_

b.  $x =$  \_\_\_\_\_

Questions 9 – 16: For each pair of similar shapes, determine the scale factor from the left figure to the right figure (you'll want to think about whether it is an enlargement or a reduction). Then determine the value of the variable.

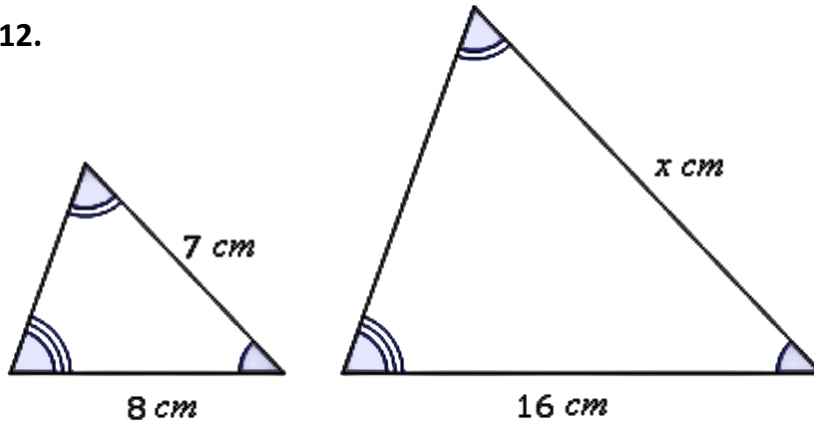
11.



a. Scale Factor: \_\_\_\_\_

b.  $x =$  \_\_\_\_\_

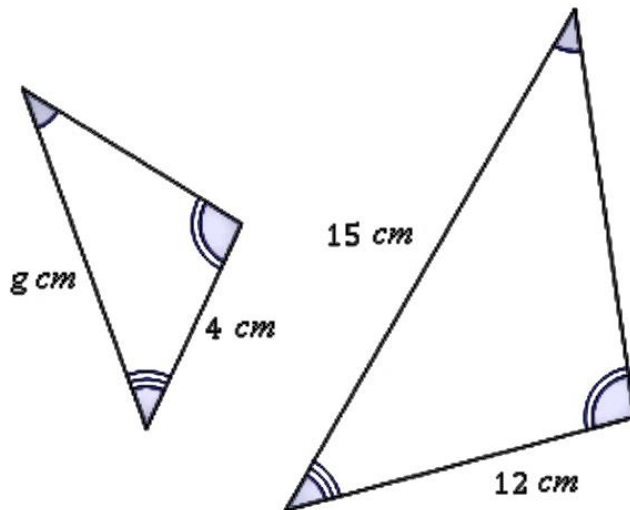
12.



a. Scale Factor: \_\_\_\_\_

b.  $x =$  \_\_\_\_\_

13.

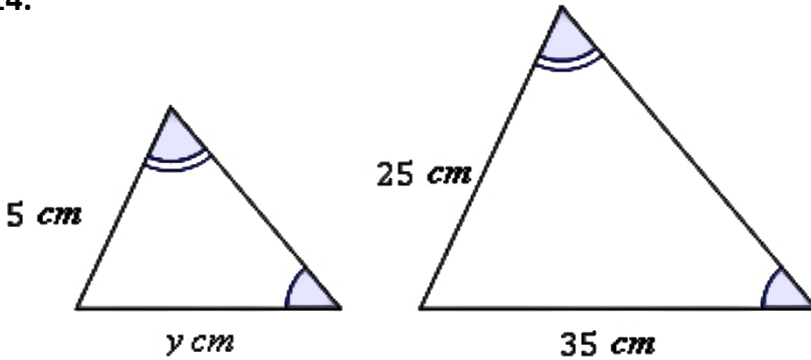


a. Scale Factor: \_\_\_\_\_

b.  $g =$  \_\_\_\_\_

Questions 9 – 16: For each pair of similar shapes, determine the scale factor from the left figure to the right figure (you'll want to think about whether it is an enlargement or a reduction). Then determine the value of the variable.

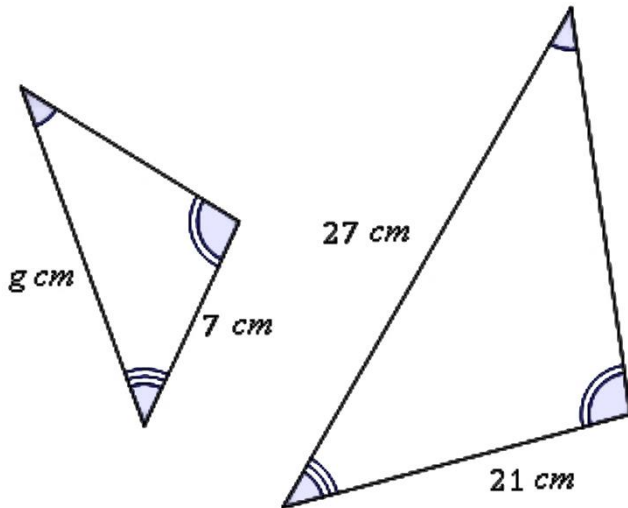
14.



a. Scale Factor: \_\_\_\_\_

b.  $y =$  \_\_\_\_\_

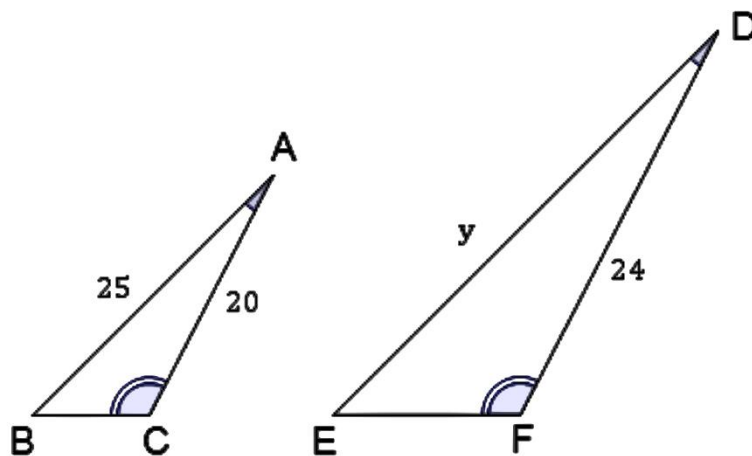
15.



a. Scale Factor: \_\_\_\_\_

b.  $g =$  \_\_\_\_\_

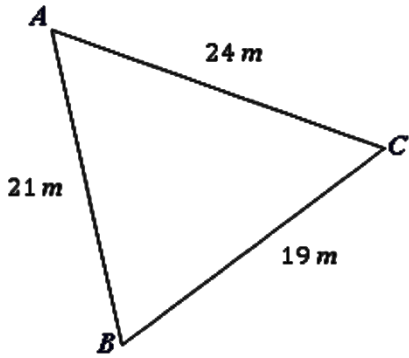
16.



a. Scale Factor: \_\_\_\_\_

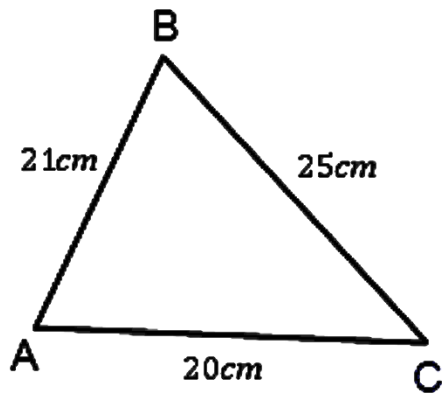
b.  $x =$  \_\_\_\_\_

17. If the dimensions of the triangle shown are changed using a scale factor of 1.3:



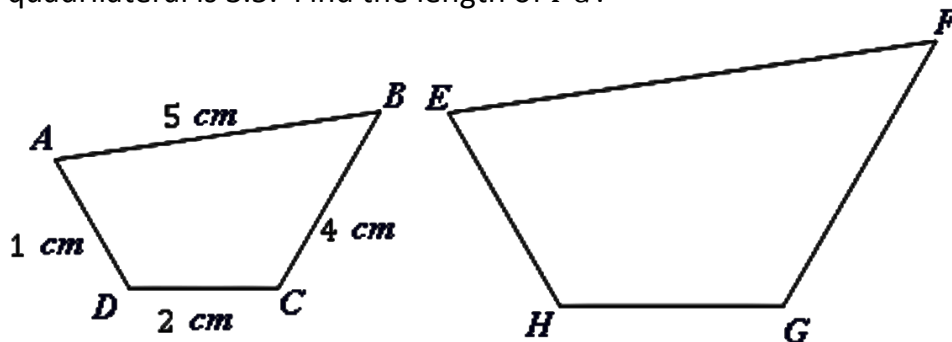
- a. Will the new sides be larger or smaller? \_\_\_\_\_
- b. What would be the new length of  $AB$ ? \_\_\_\_\_
- c. What would be the new length of  $BC$ ? \_\_\_\_\_
- d. What would be the new length of  $CA$ ? \_\_\_\_\_

18. If the dimensions of the triangle shown are changed using a scale factor of 0.92:



- a. Will the new sides be larger or smaller? \_\_\_\_\_
- b. What would be the new length of  $AB$ ? \_\_\_\_\_
- c. What would be the new length of  $BC$ ? \_\_\_\_\_
- d. What would be the new length of  $CA$ ? \_\_\_\_\_

19. In the figure shown the scale factor used to enlarge the smaller quadrilateral is 3.5. Find the length of  $FG$ .



Name \_\_\_\_\_

**20.** Mary has designed plans for a triangular courtyard in the town square.  
The drawing shows the courtyard to have dimensions of 5 cm, 6 cm, and 9 cm.  
The shortest side of the actual courtyard is to be 100 meters long.

**a.** What will the longest side length of the actual courtyard be? \_\_\_\_\_  
Show how you got your answer, and label.

**b.** What will the middle side length of the actual courtyard be? \_\_\_\_\_  
Show how you got your answer, and label.