

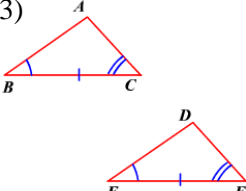
1) In a recent toy drive, a school club collected 315 toys for girls and 230 toys for boys. What is the ratio of toys for girls and boys?

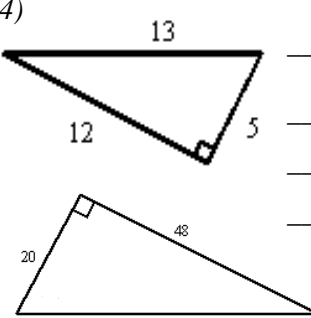
\_\_\_\_\_

2) Solve the proportion. \_\_\_\_\_

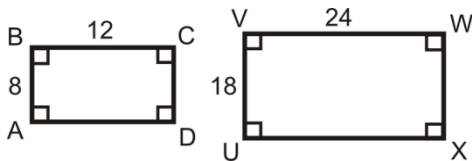
$$\frac{7}{20} = \frac{x}{14}$$

For #3 and 4, determine whether the pair of triangles is similar. Justify your answer.

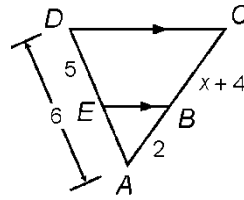
3)  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4)  \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

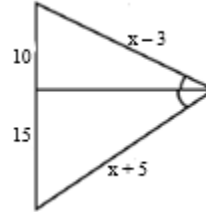
5) Is the following pair of rectangles similar? Explain your answer: \_\_\_\_\_  
 \_\_\_\_\_



6) Find BC \_\_\_\_\_

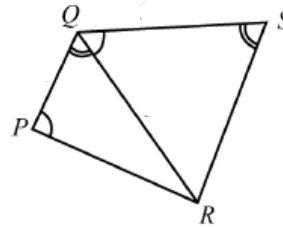


7) Find x \_\_\_\_\_

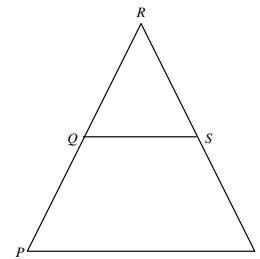


8) Write the similarity statement: \_\_\_\_\_

$PQ \sim$  \_\_\_\_\_  $PR \sim$  \_\_\_\_\_  $QR \sim$  \_\_\_\_\_

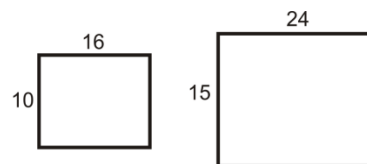


9) Find x so that  $\overline{QS} \parallel \overline{PT}$ . \_\_\_\_\_

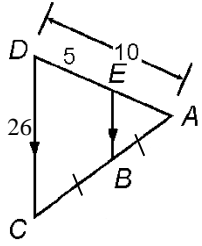


$PQ=16$ ,  $QR=10$ ,  $RS=30$ ,  $ST=2x+6$

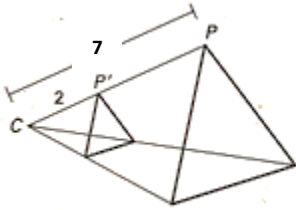
10) Find the scale factor of the following pair of similar polygons: \_\_\_\_\_



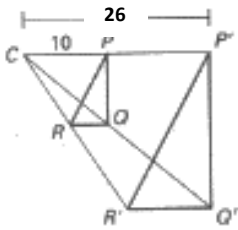
- 11) a) What is segment  $\overline{EB}$  called? \_\_\_\_\_  
 b) Find its length. \_\_\_\_\_



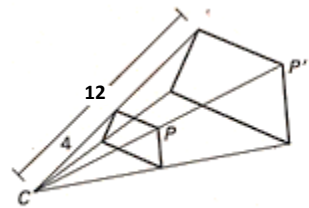
For #12-13, determine whether the dilation is a reduction or an enlargement, and find the scale factor or the image to preimage.



- 12) \_\_\_\_\_  
 Scale factor: \_\_\_\_\_

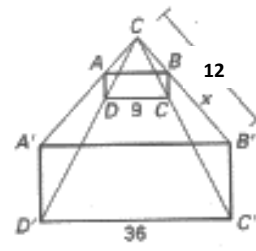


- 13) \_\_\_\_\_  
 Scale factor: \_\_\_\_\_

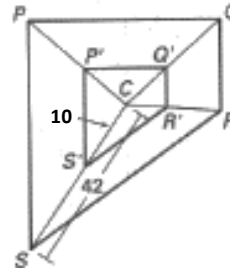


- 14) \_\_\_\_\_  
 Scale factor: \_\_\_\_\_

For #14-15, find the value of  $x$ .



- \_\_\_\_\_ 14)



- \_\_\_\_\_ 15)

- 16) The screen on your old television is 40 inches wide and 30 inches high. The screen on your new widescreen television is 32 inches wide and 18 inches high. Is the screen on your new TV a dilation of the screen on your old TV? Explain.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Extra credit:** Draw a dilation of the figure using the given scale factor of  $\frac{1}{4}$ .

