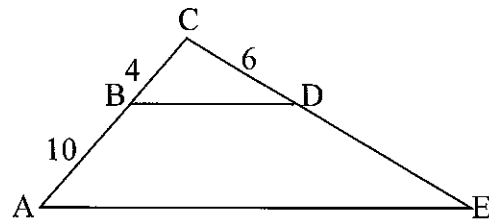


Name: Key Date: _____

Similarity Review

1) Given $\overline{BD} \parallel \overline{AE}$, find DE and CE.

(15) (21)
 $\frac{4}{10} = \frac{6}{x}$
 $x = 15$



2) A model of a building has a scale of 2 in to 15 ft.

If the model is 5 in tall, how tall is the actual building?

$\frac{2 \text{ in}}{15 \text{ ft}} = \frac{5 \text{ in}}{x}$
 $x = 37.5 \text{ ft.}$

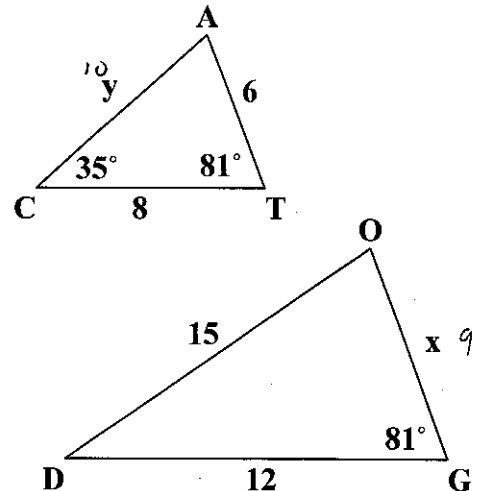
3) In the diagram, $\triangle CAT \sim \triangle DOG$. Use the diagram to find each of the following.

a) Scale factor of $\triangle CAT$ to $\triangle DOG$ (Simplify if necessary)

Scale Factor = $\frac{12}{8} = \frac{3}{2}$

b) Find x and y (Show Work!)

$\frac{8}{12} = \frac{6}{x}$ $\frac{8}{12} = \frac{y}{15}$
 $x = 9$ $y = 10$



c) Find $m\angle D = 35^\circ$

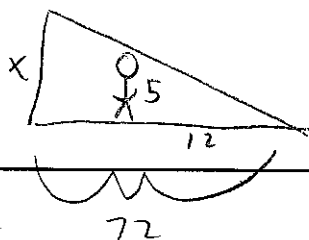
d) Find $m\angle O = 64^\circ$

e) Find the perimeter of $\triangle CAT = 24$

Find the perimeter of $\triangle DOG = 36$

f) What is the ratio of the perimeter of $\triangle CAT$ to the perimeter of $\triangle DOG$? $\frac{24}{36} = \frac{2}{3}$

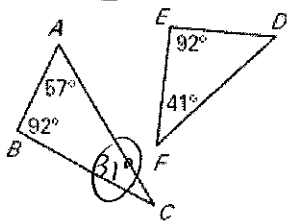
4) A boy who is 5 ft. tall cast a shadow that is 12 ft long. At the same time, a building nearby cast a shadow that is 72 ft long. How tall is the building? Draw a picture!



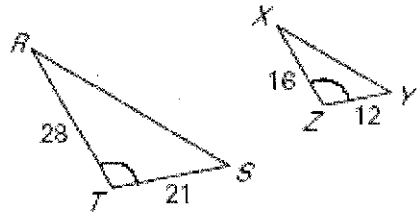
$\frac{5}{x} = \frac{12}{72}$ $x = 30$

5) Explain why the triangles are similar and write a similarity statement.

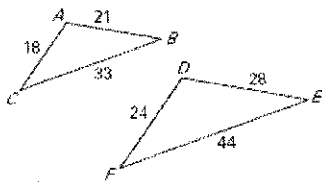
a) NO by _____



b) $\triangle RST \sim \triangle XYZ$ by SAS

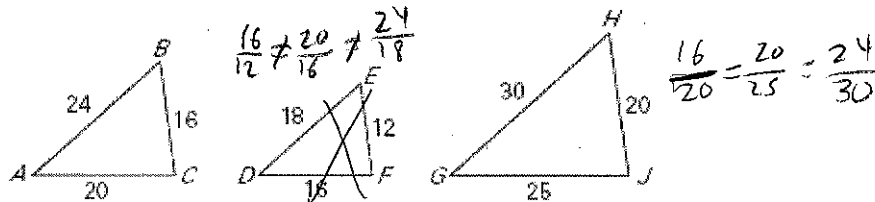


b) $\triangle ABC \sim \triangle DEF$ by SSS



scale = $\frac{4}{3}$

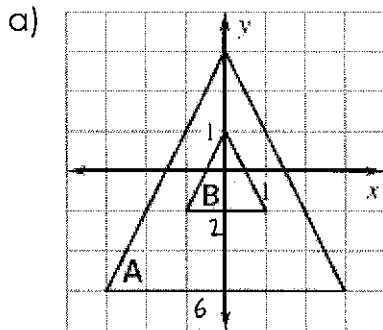
6) Determine which of the triangles ($\triangle DEF$ or $\triangle GHJ$) is similar to $\triangle ABC$



a) Complete the Similarity Statement to $\triangle ABC \sim \triangle$ GHJ

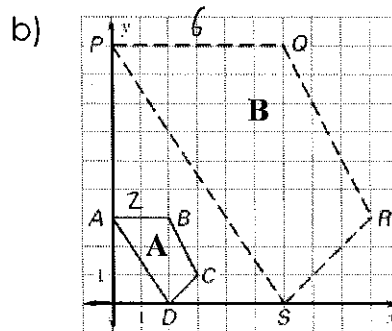
b) Find the Scale Factor = $\frac{5}{4}$

7) Determine whether the dilation from Figure A to Figure B is a reduction or an enlargement. Then find its scale factor. Simplify if possible.



Reduction

scale factor = $\frac{2}{6} = \frac{1}{3}$



Enlargement

scale factor = $\frac{6}{2} = \frac{3}{1}$