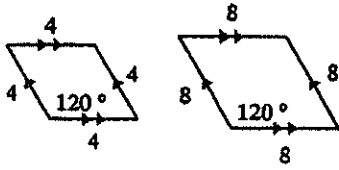


Assignment

State if the shapes are similar. If so, state how you know they are similar and complete the similarity statement.

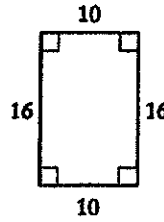
1)



Yes

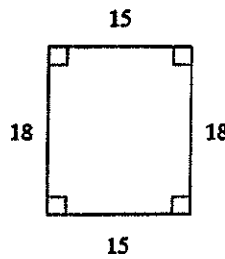
$$\frac{4}{8} = \frac{4}{8} \checkmark$$

2)

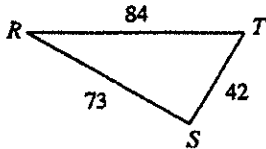


$$\frac{10}{15} \neq \frac{16}{18}$$

NO



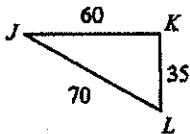
3)



$$\frac{84}{70} = \frac{42}{30}$$

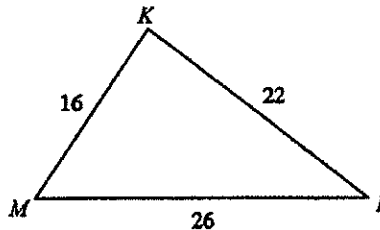
$$1.2 \neq 1.4$$

NO

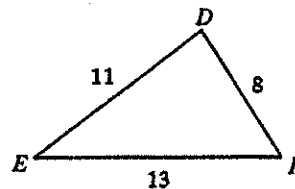


$\triangle RST \sim$ ~~JKL~~

4)



$$\frac{8}{10} = \frac{22}{11} \checkmark$$

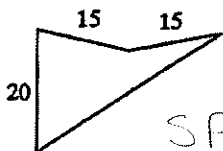


$\triangle MLK \sim \triangle FED$

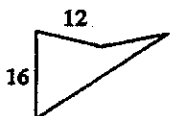
The shapes in each pair are similar. Find the scale factor of the smaller figure to the larger figure.

Small \times SF = Big SF = $\frac{\text{Big}}{\text{Small}}$

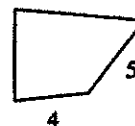
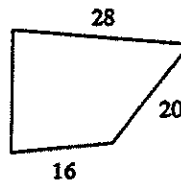
5)



$$SF = \frac{15}{12} = \frac{5}{4} = 1.25$$

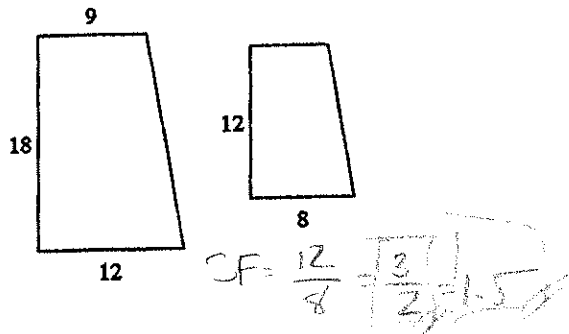


6)

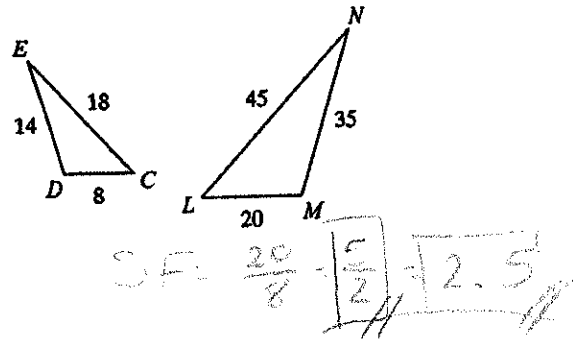


$$CF = \frac{20}{5} = 4$$

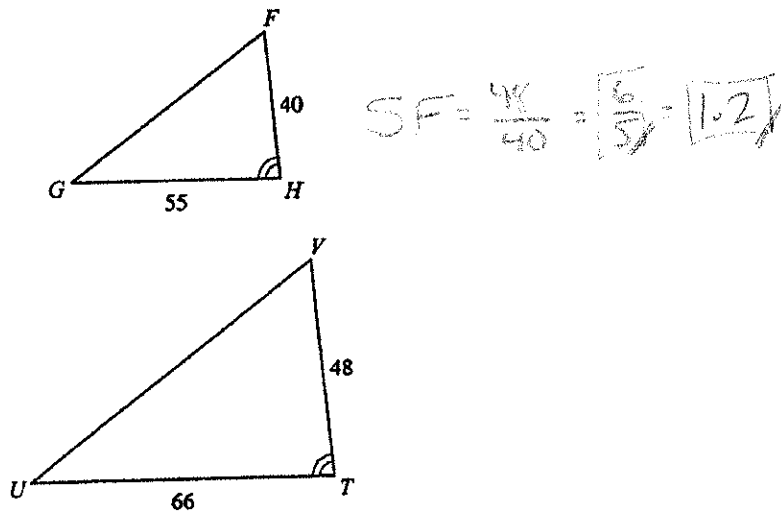
7)



8) $\triangle LMN \sim \triangle CDE$

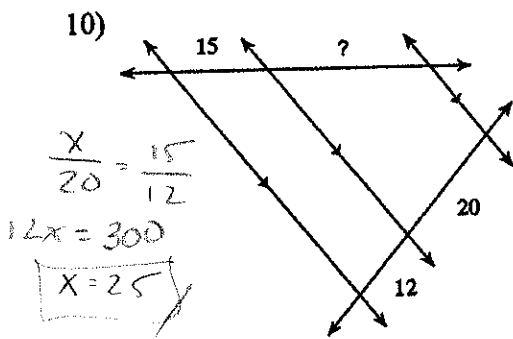


9) $\triangle TUV \sim \triangle HGF$

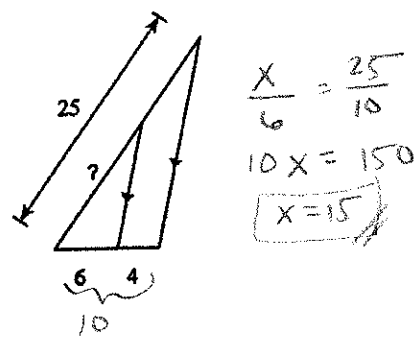


Find the missing length indicated.

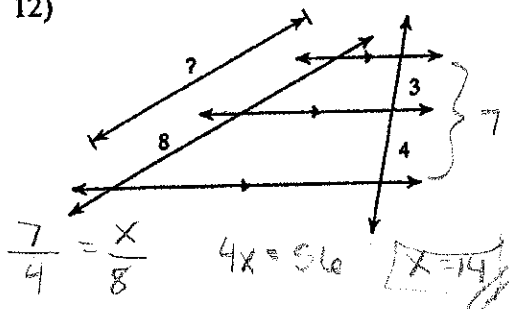
10)



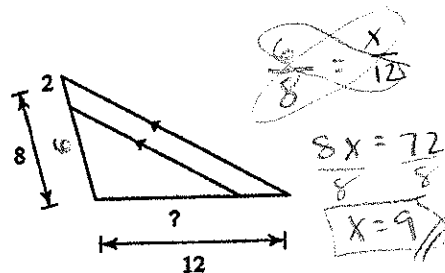
11)



12)

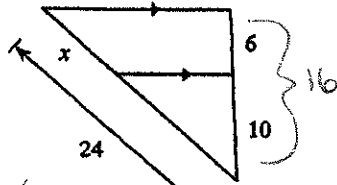


13)



Solve for x.

14)

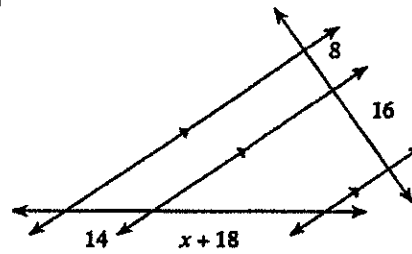


$$\frac{6}{16} = \frac{x}{24}$$

$$16x = 144$$

$$x = 9$$

15)



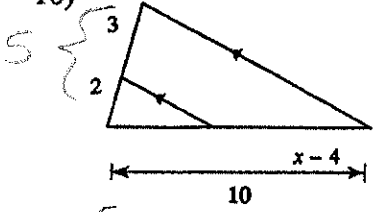
$$\frac{8}{14} = \frac{16}{x+18}$$

$$8(x+18) = 224$$

$$x+18 = 28$$

$$x = 10$$

16)



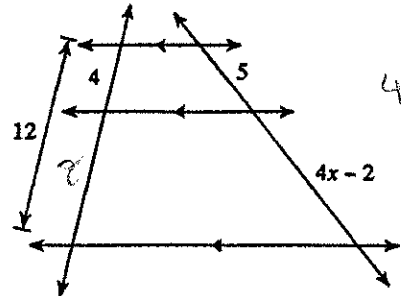
$$\frac{5}{10} = \frac{3}{x-4}$$

$$5(x-4) = 30$$

$$x-4 = 6$$

$$x = 10$$

17)



$$\frac{5}{4} = \frac{4x-2}{8}$$

$$4(4x-2) = 40$$

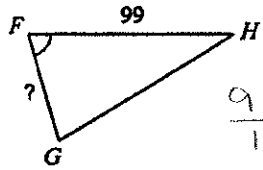
$$4x-2 = 10$$

$$4x = 12$$

$$x = 3$$

Find the missing length. The triangles in each pair are similar.

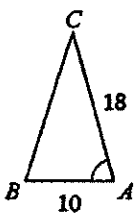
18) $\triangle FGH \sim \triangle ABC$



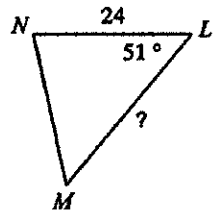
$$\frac{99}{18} = \frac{x}{10}$$

$$18x = 990$$

$$x = 55$$



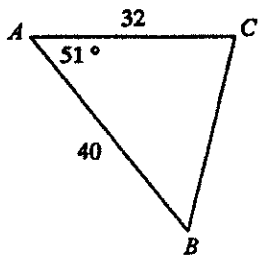
19) $\triangle ABC \sim \triangle LMN$



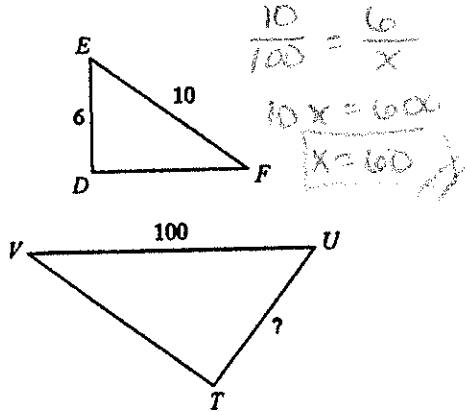
$$\frac{24}{32} = \frac{x}{40}$$

$$32x = 960$$

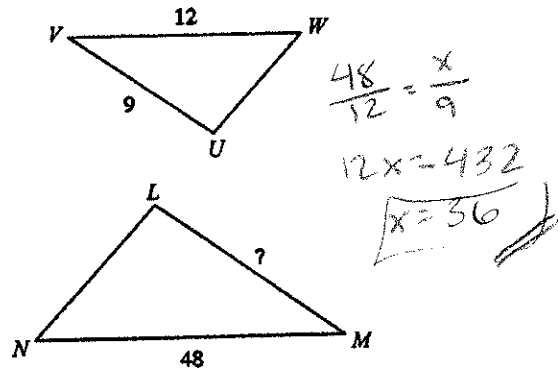
$$x = 30$$



20) $\triangle TUV \sim \triangle DEF$

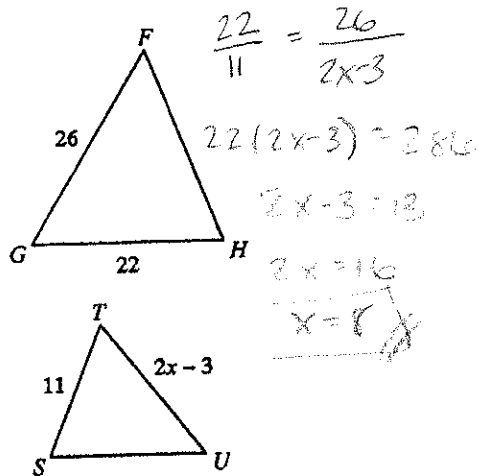


21) $\triangle LMN \sim \triangle UVW$

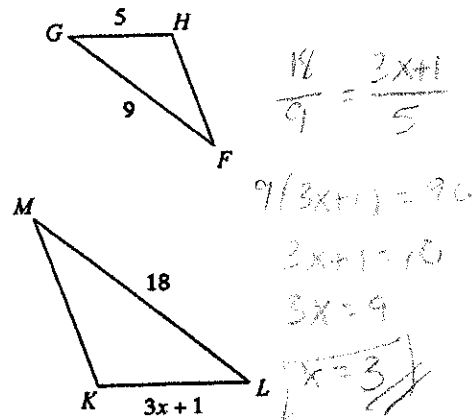


Solve for x. The triangles in each pair are similar.

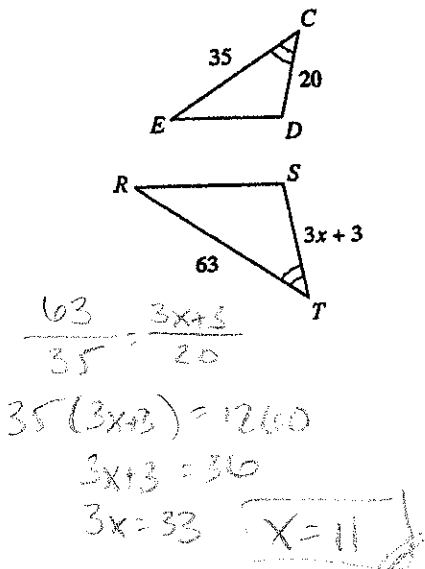
22) $\triangle HGF \sim \triangle STU$



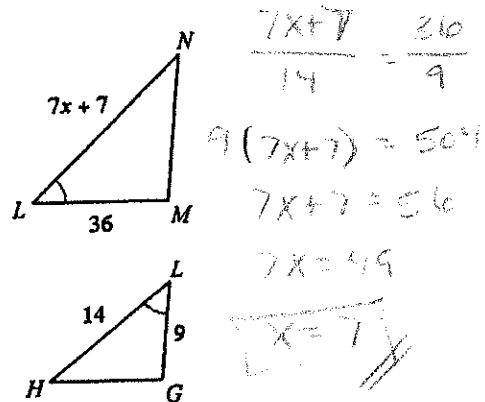
23) $\triangle MLK \sim \triangle FGH$



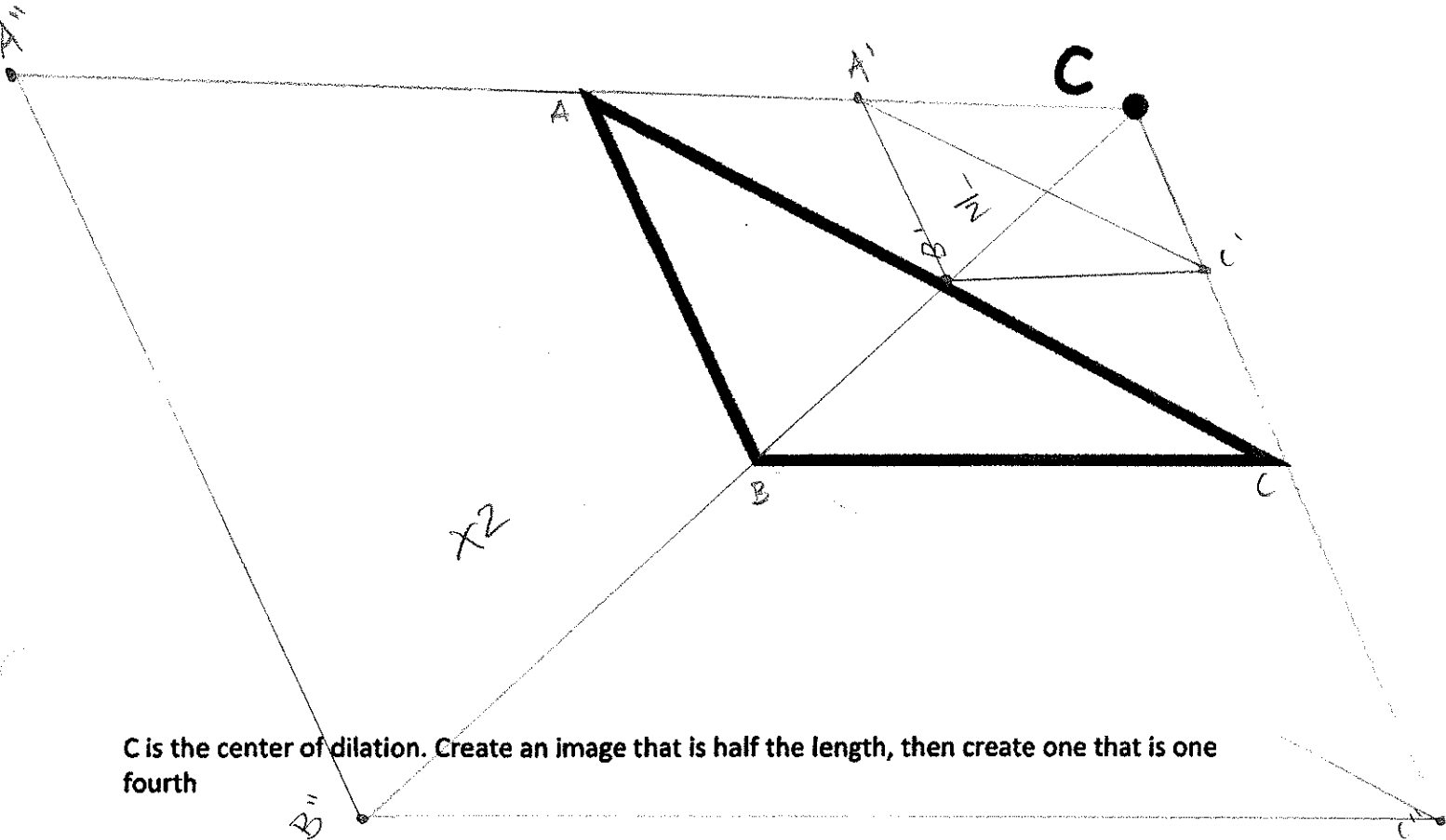
24) $\triangle TSR \sim \triangle CDE$



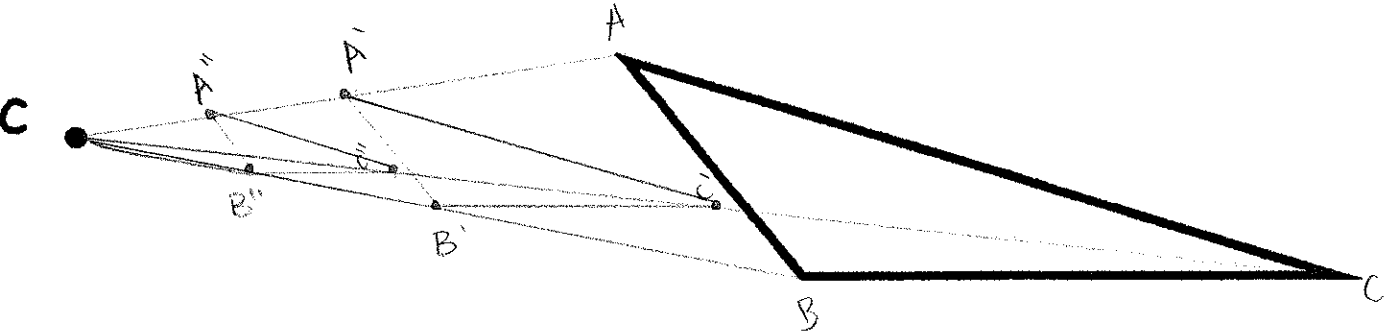
25) $\triangle LMN \sim \triangle LGH$



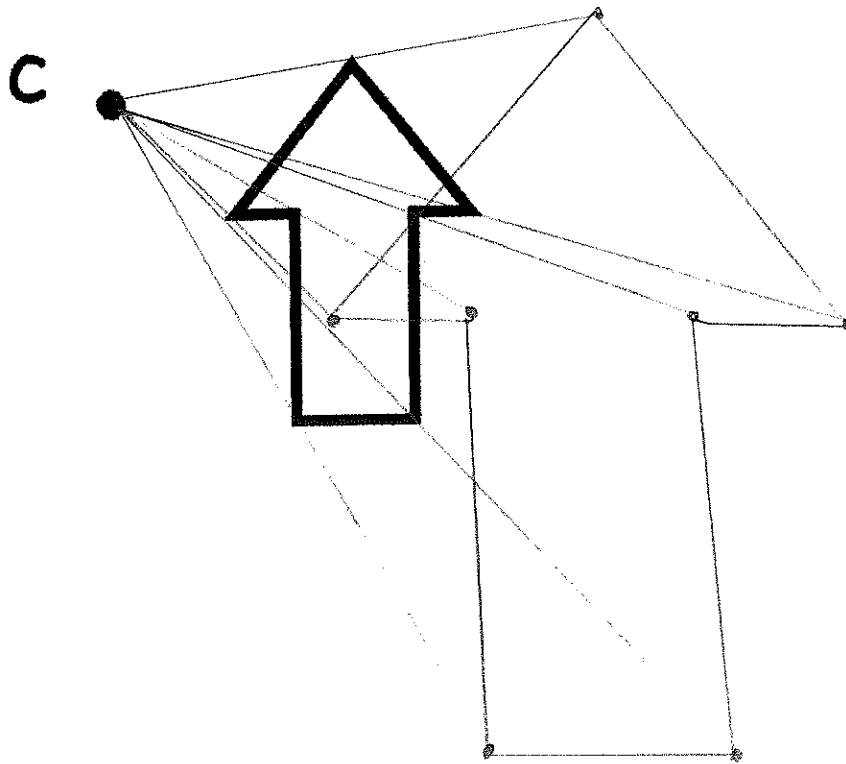
C is the center of dilation. Create an image that is half the length, then create one that is double the length.



C is the center of dilation. Create an image that is half the length, then create one that is one fourth

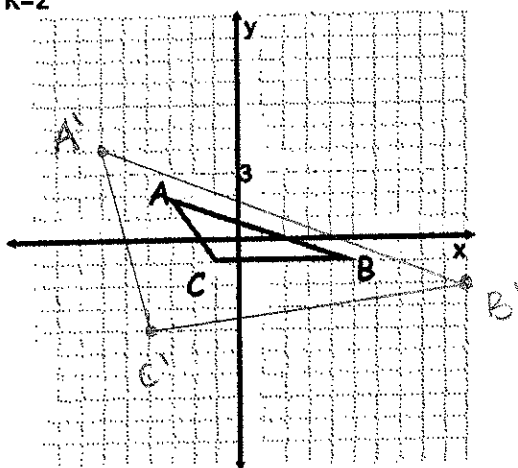


C is the center of dilation. Create an image that is twice the length.



With the center of dilation at the origin (0,0) draw a dilation on the figure using the given scale factor.

$K=2$



$k=1/2$

