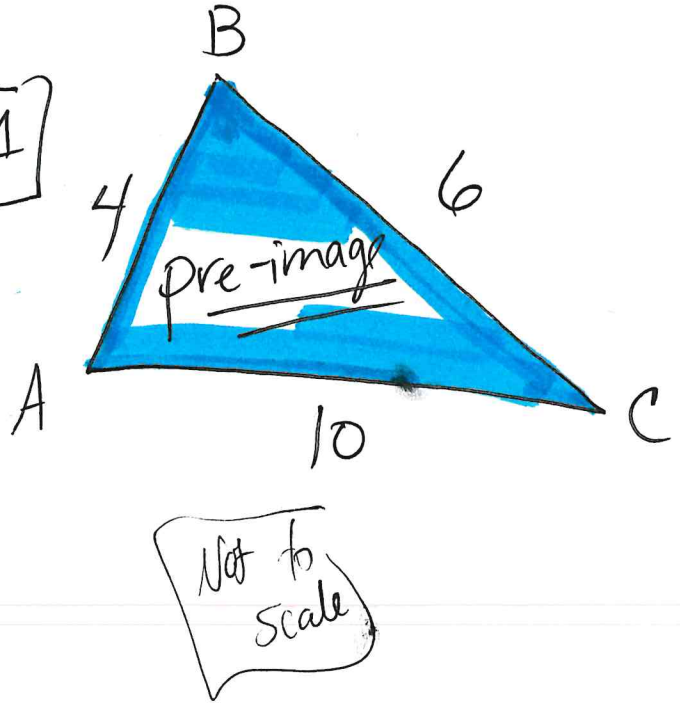
11/4 Module 2 Lessons 1/2 →

Scale Drawings (Dilations)

Dilation: changing the original (pre-image) to make smaller (reduction) or large (enlargement)

ie1



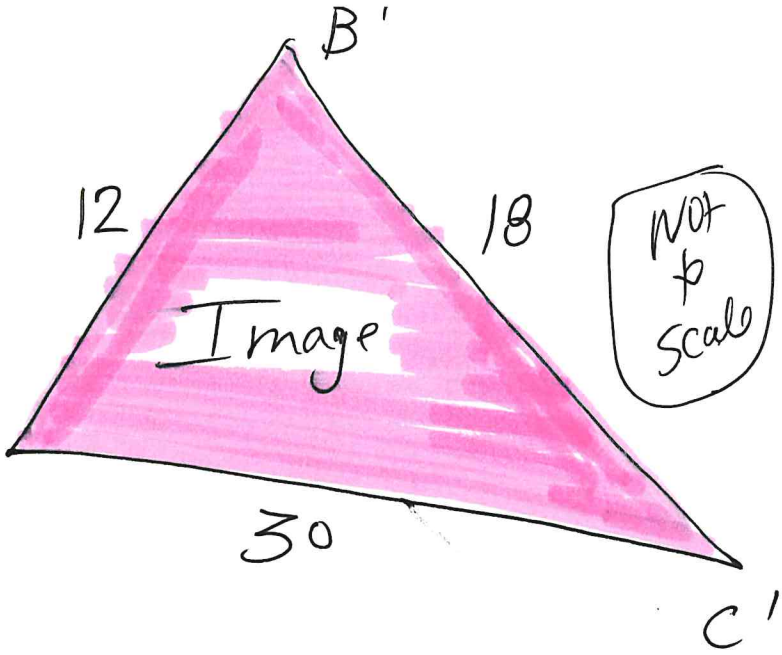
Dilation Scale Factor (dilation SF): 3 enlargement

(mult. each number by 3)

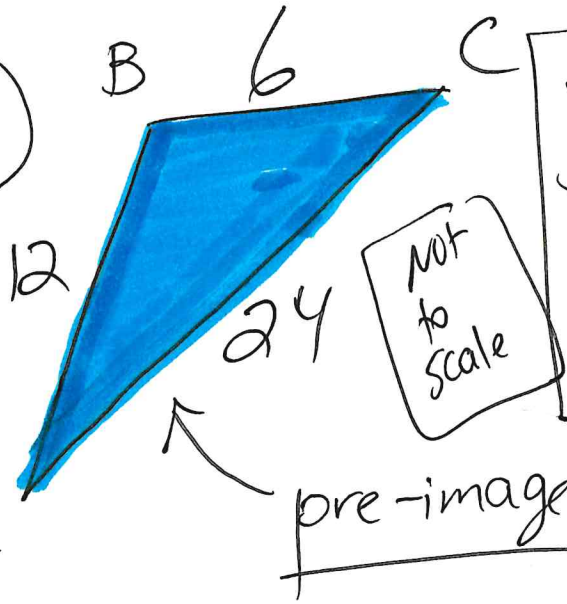
$\overline{AB'} = 4 \cdot 3 = 12$

$\overline{BC'} = 6 \cdot 3 = 18$

$\overline{AC'} = 10 \cdot 3 = 30$



ie 2



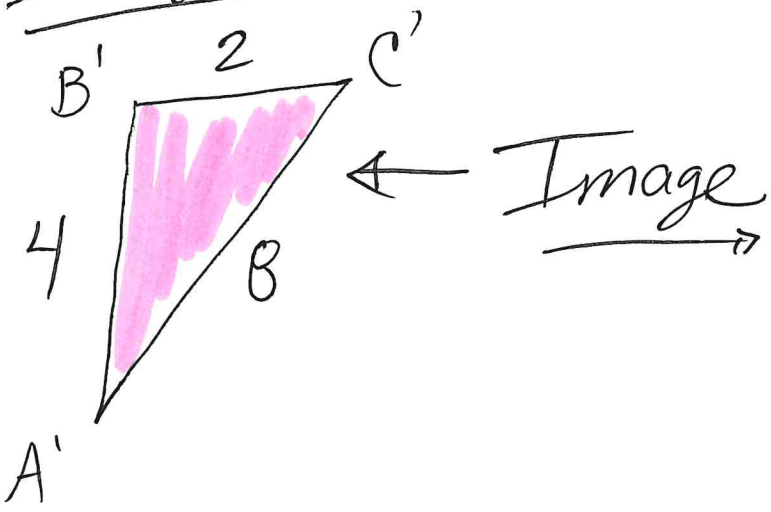
Dilation SF $= \frac{1}{3}$ reduction

$\overline{AB'} = \frac{12 \to 1}{1 \to 3} = \frac{12}{3} = 12 \div 3 = 4$

$\overline{BC'} = \frac{6 \to 1}{1 \to 3} = \frac{6}{3} = 6 \div 3 = 2$

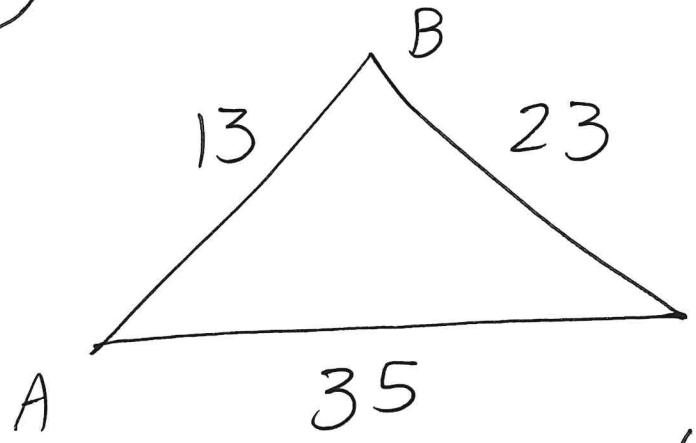
$\overline{AC'} = \frac{24 \to 1}{1 \to 3} = \frac{24}{3} = 24 \div 3 = 8$

Image



Not to Scale

(ie3) Dilation (S.F.) $= \frac{1}{4}$



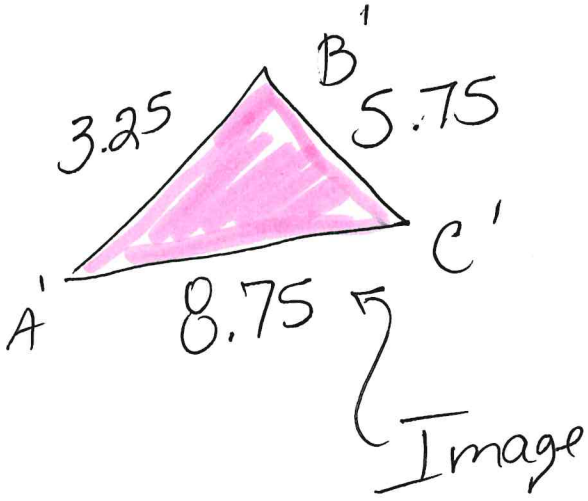
Not to scale

trig. functions / graphing it!

$\overline{AB'} = \frac{13 \rightarrow 1}{1 \sim 4} = \frac{13}{4} = 13 \div 4 = 3.25$

$\overline{BC'} = \frac{23 \rightarrow 1}{1 \sim 4} = \frac{23}{4} = 23 \div 4 = 5.75$

$\overline{AC'} = \frac{35 \rightarrow 1}{1 \sim 4} = \frac{35}{4} = 35 \div 4 = 8.75$



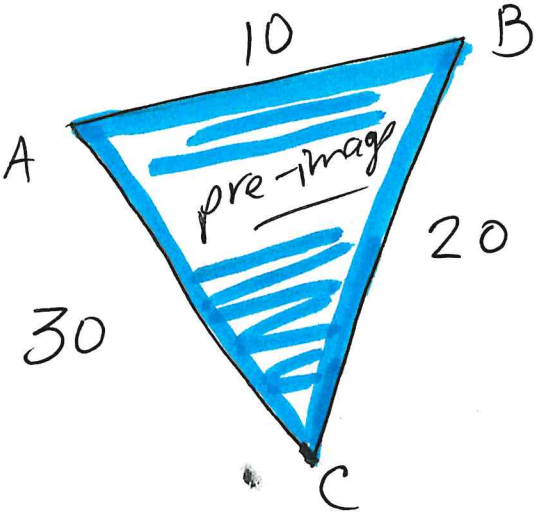
Not to scale

Module 2 L 1/2

Name: _____

HR: _____

1.)



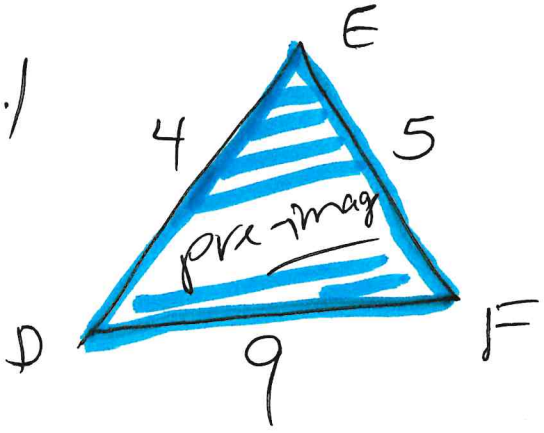
Dilation SF = 3

$\overline{AB}' =$ _____

$\overline{BC}' =$ _____

$\overline{AC}' =$ _____

2.)



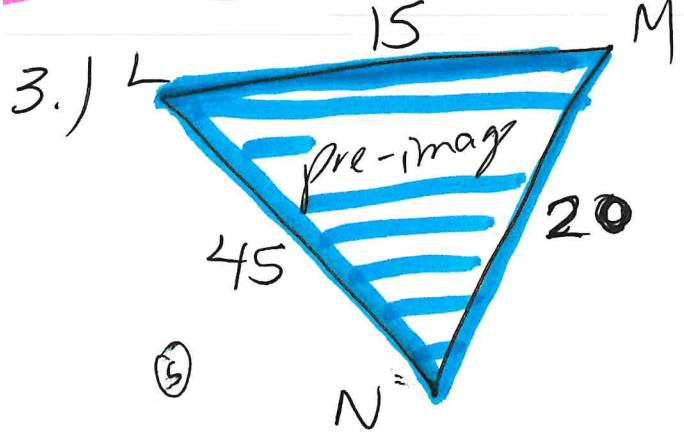
Dilation SF = $\frac{1}{2}$

$\overline{DE}' =$ _____

$\overline{EF}' =$ _____

$\overline{DF}'' =$ _____

3.)



Dilation SF = $\frac{1}{3}$

$\overline{LM}' =$ _____

$\overline{MN}' =$ _____

$\overline{LN}' =$ _____