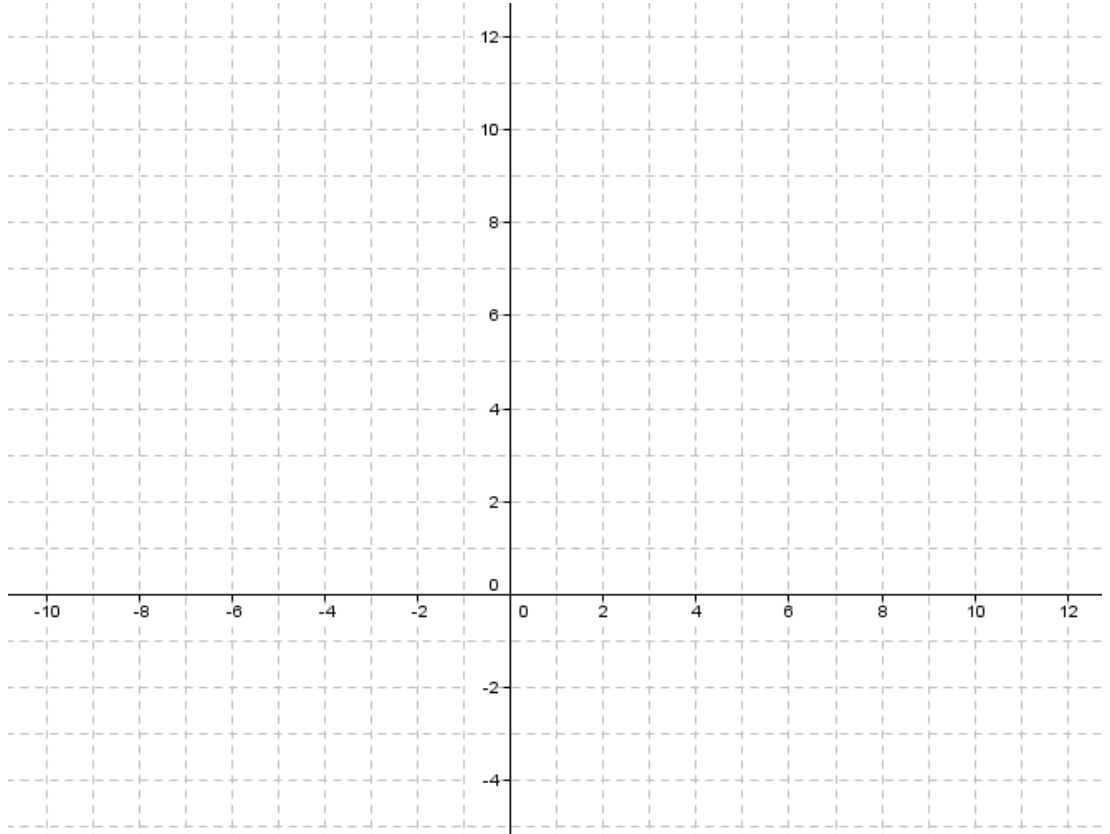


3.2.1 Homework: Day 2

1. a) Graph the line $y = \frac{1}{4}x + 2$. Use a straightedge.

b) Then draw two different-sized slope triangles on the line. Label the triangles $\triangle ABC$ and $\triangle DEF$.



c) Find the lengths of all three sides of both slope triangles.

$AB =$	$DE =$
$BC =$	$EF =$
$AC =$	$DF =$

d) Show that the two triangles are similar using SSS by setting up and finding the three corresponding proportions. (Hint: it might help to use three different colored highlighters here.)

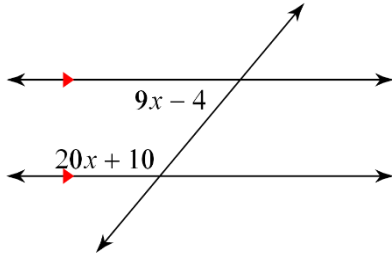
e) In class yesterday, you discovered that the slope angle of 11° produced a slope ratio of $\frac{1}{5}$. What is the slope ratio of this triangle? What do you think you can conclude about the angle? Is it 11° ? Smaller than 11° ? Greater than 11° ? Justify your answer.

#2-5. Solve the following problems for the variable. Show that your answer checks.

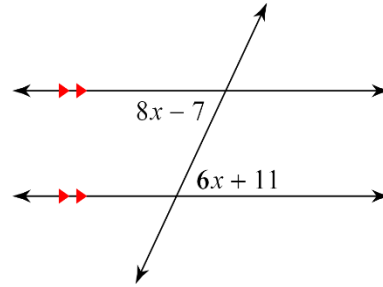
2. $\frac{x-9}{7} = \frac{10}{4}$

3. $\frac{5x+2}{3x-4} = \frac{5}{2}$

4.

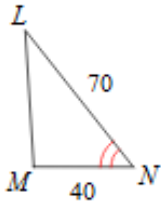
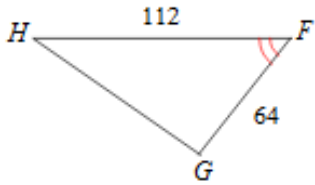


5.



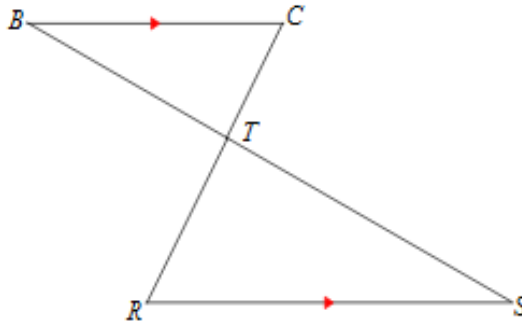
#6-8. Decide if each pair of triangles is similar. If they are similar, write a similarity statement and state the similarity condition used to justify your answer. Show all work.

6.



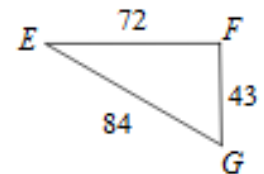
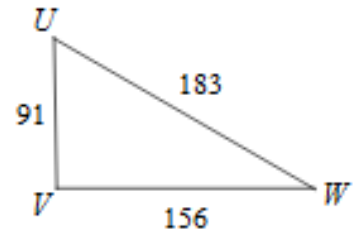
$\triangle FGH \sim$ _____

7.



$\triangle TSR \sim$ _____

8.



$\triangle WVU \sim$ _____