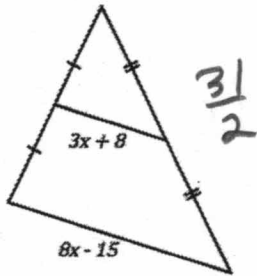
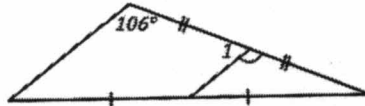


4. Solve for the value of  $x$  in parts a and b. Solve for the measure of angle 1 in part b.

a.



b.



6. If  $\triangle ABC \sim \triangle PQR$  and  $\angle C = 2x + 2$ ,  $\angle R = 3x - 18$ , find the value of  $x$ .

20

7.  $\triangle XYZ \sim \triangle JKL$ . If  $\angle Y = 14 - x$ ,  $\angle K = 2x + 50$  and  $\angle L = -4x$  find the  $m\angle Z$ .

48°

11. In  $\triangle EFG$ ,  $\angle E = 6x - 8$ ,  $\angle F = 7x + 3$ , and  $\angle G = 3x - 7$ . Find the measure of each angle.

~~$\angle E = 64^\circ$~~   
 ~~$\angle F = 87^\circ$~~   
 ~~$\angle G = 29^\circ$~~

12. Two angles of a triangle measure  $18^\circ$  and  $77^\circ$ . Find the measure of the third angle.

A.  $19^\circ$

B.  $36^\circ$

C.  $59^\circ$

D.  $64^\circ$

E.  $85^\circ$

20.  $\triangle WHY \sim \triangle GEO$ .  $m\angle W = 55$ ,  $m\angle E = 60$ . Find  $m\angle Y$ .

~~$\angle Y = 65^\circ$~~

21.  $\triangle MAD \sim \triangle COW$ .  $MA = 8$ ,  $AD = 5$ ,  $CO = 6$ . Find the scale factor of  $\triangle MAD$  to  $\triangle COW$  and the length of  $OW$ .

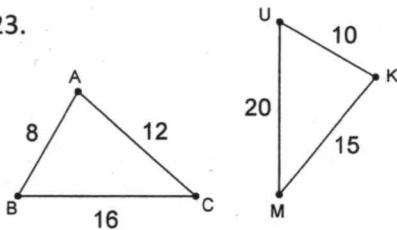
Scale factor =

$\frac{4}{3}$

$OW = \frac{15}{4}$

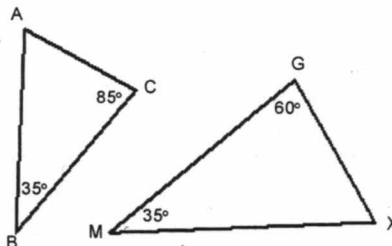
Determine whether the following triangles are similar. If so, complete the similarity statement and a state a **specific** reason. If not, write "not similar". (Figures are not drawn to scale!)

23.



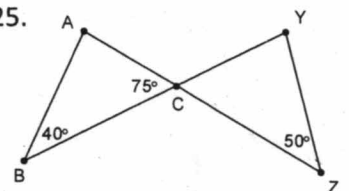
Similar  
SSS  
 $\triangle ABC \sim \triangle KUM$

24.



Similar  
AA  
 $\triangle ABC \sim \triangle GMX$

25.



Not Similar