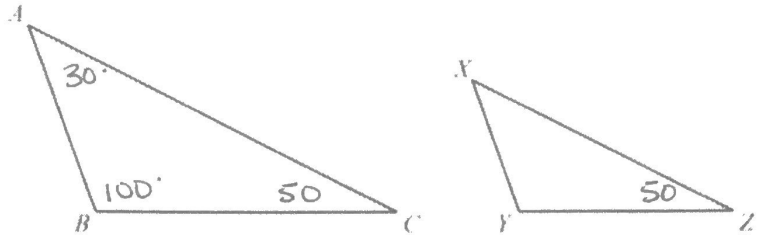
Geometry
Similar Triangles

Name Key
Date _____ Period _____

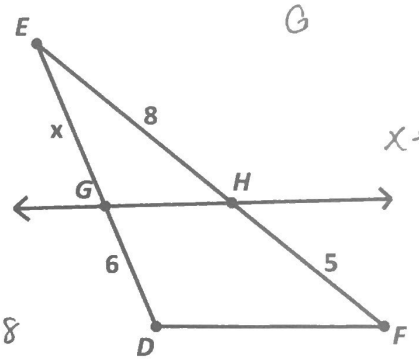
1. In the triangles shown, ΔABC is dilated by a factor of $\frac{2}{3}$ to form ΔXYZ.



Given that $m\angle A = 30°$ and $m\angle B = 100°$, what is $m\angle Z$?

A. 20°
B. 30°
C. 33°
D. 50°

2. In the triangle shown, $\overleftrightarrow{GH} \| \overline{DF}$



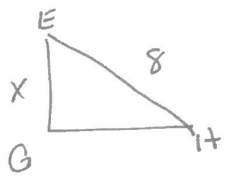
What is the length of $\overline{GE}$?

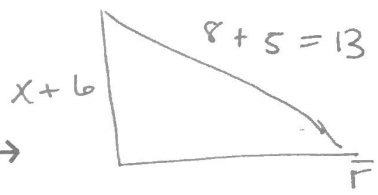
A. 3.7
B. 3.8
C. 6.7
D. 9.6

$\frac{x}{6} = \frac{8}{5}$

$5x = 48$

$x = 9.6$





$\frac{x}{x+6} = \frac{8}{13}$

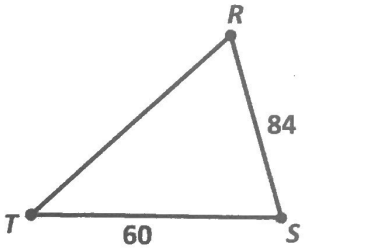
$13x = 8x + 48$

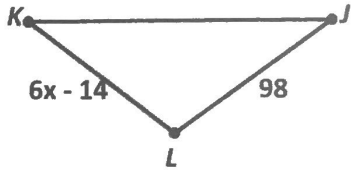
$5x = 48$

$x = 9.6$

3. $\Delta RST \sim \Delta JLK$

What is the measure of x ?





A. 11
B. 14
C. 19
D. 25

$\frac{84}{98} = \frac{60}{6x-14}$

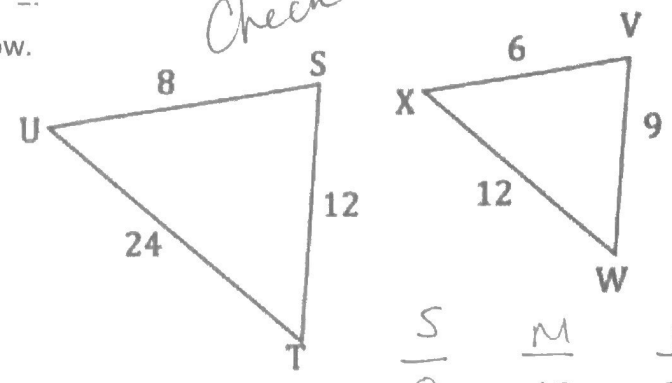
$5880 = 504x - 1176$

$7056 = 504x$

$x = 14$

Check all 3 sides

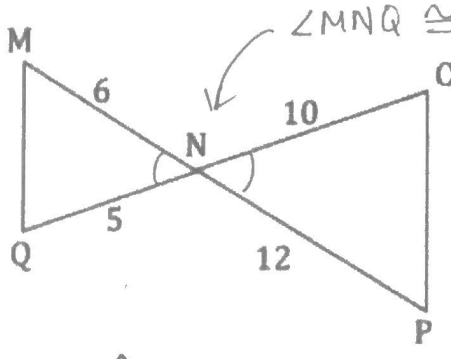
4. Are the two triangles similar? If so, state how.



A. Yes, by AA~
B. Yes, by SAS~
C. Yes, by SSS~
D. No, the triangles are not similar

S: 8, 6 | M: 12, 9 | L: 24, 12

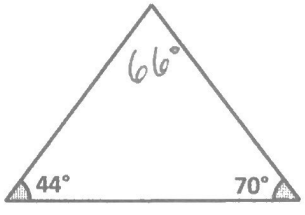
5. Examine the two triangles below and determine if ΔMNQ is similar to ΔPNO.

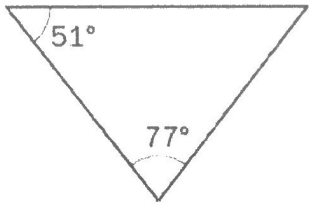


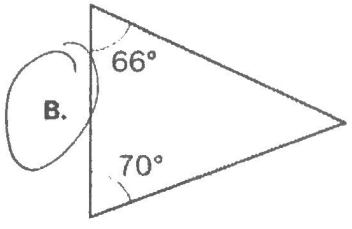
A. Yes, by AA~
B. Yes, by SAS~
C. Yes, by SSS~
D. No, there is not enough information

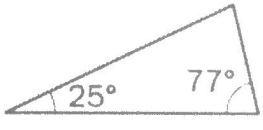
S: 5, 10 ✓ | L: 6, 12

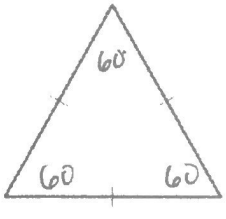
6. Which triangle is similar to the given triangle?



A.


B.


C.


D.


180/3 = 60°