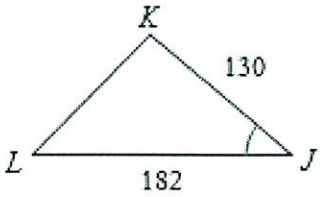
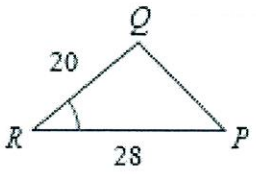
Name _____

If the following Trianlges can be proved similar, state why (Postulate or theorem), and then write a similarity statement.

1)



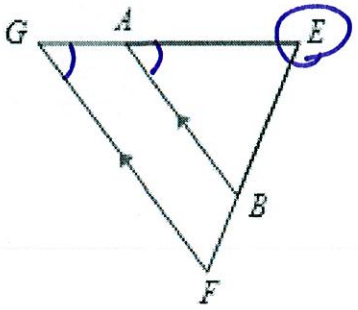


$\frac{28}{182} = \frac{20}{130}$

$3640 = 3640$

SAS~ $\triangle LKJ \sim \triangle PQR$

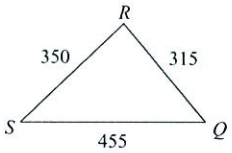
2)

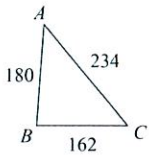


AA~ $\triangle AEB \sim \triangle GEF$

3)

SSS~





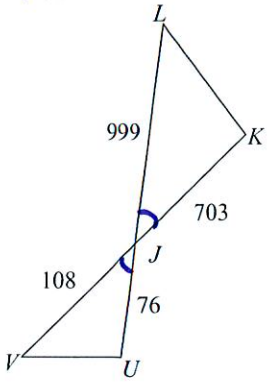
$\frac{162}{315} = \frac{180}{350} = \frac{234}{455}$

$\frac{18}{35} = \frac{18}{35} = \frac{18}{35}$

$\triangle QRS \sim \triangle CBA$

4)

SAS~



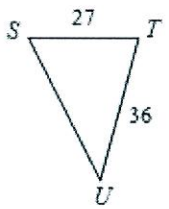
$\frac{76}{703} = \frac{108}{999}$

$\frac{4}{37} = \frac{4}{37}$

$\triangle JKL \sim \triangle JUV$

Solve for x: Show your work:

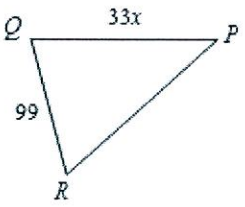
5) STU ~ RQP



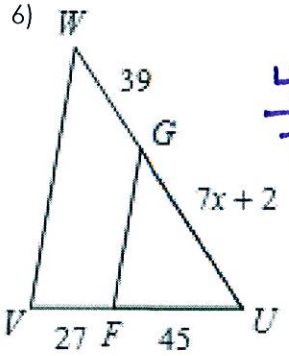
$\frac{27}{99} = \frac{36}{33x}$

$891x = 3564$

$x = 4$



6)



$\frac{45}{72} = \frac{7x+2}{7x+41}$

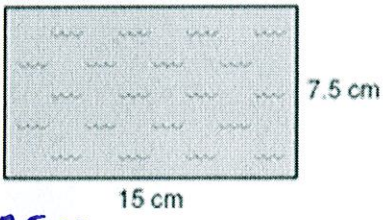
$315x + 1845 = 504x + 144$

$1701 = 189x$

$9 = x$

GSE Honors Geometry: Quiz Review Part 1 Name: _____

1. A diagram of a new competition swimming pool is shown. If the longer side of the pool is 25 meters, find the area of the actual pool.



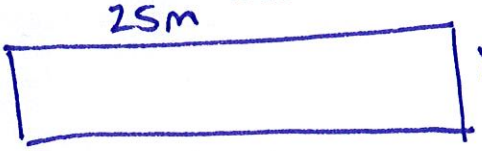
$\frac{15}{25} = \frac{7.5}{x}$

$15x = 187.5$

$x = 12.5$

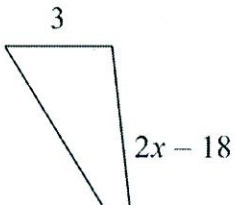
$A = (25)(12.5)$

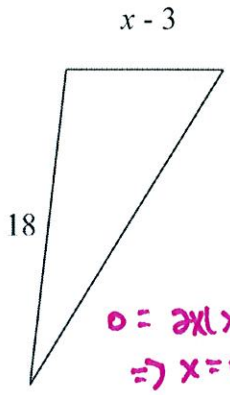
$= (312.5)\ m$



2. The ratio of a model scale die cast motorcycle is 1:18. The model is 5.5 inches long. What is the length of the actual motorcycle in feet and inches?

3. Solve for x .





$\frac{3}{x-3} = \frac{2x-18}{18}$

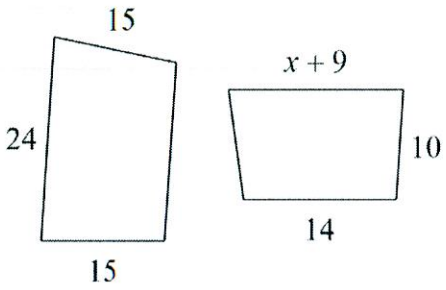
$54 = 2x^2 - 6x - 18x + 54$

$0 = 2x^2 - 24x$

$0 = 2x(x-12)$

$\Rightarrow x = 0$ $\boxed{x = 12}$

4.



$\frac{24}{x+9} = \frac{15}{10}$

$240 = 15x + 135$

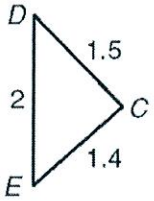
$105 = 15x$

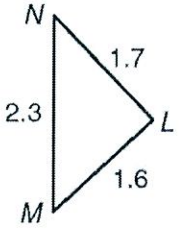
$\boxed{7 = x}$

5. Determine whether the triangles are similar. If so, write the similarity ratio and a similarity statement. If not, explain why not.

$\triangle CDE$ and $\triangle LMN$

* Not ~
* None of the same ratio





$\frac{CD}{LM} = \frac{1.5}{1.6} = \frac{15}{16}$

$\frac{DE}{MN} = \frac{2}{2.3} = \frac{20}{23}$

6. UV and UW are midsegments

Find the following: UW = 5.1 RT = 11.2

Angle STR = 41 Angle UWT = 139