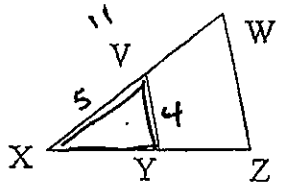
Name: _____ Date: _____ Hour: _____

Unit L Exam Review

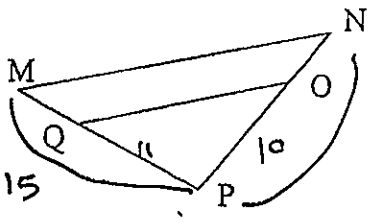
1. $\Delta WXZ \sim \Delta VXY$. If VY=4, WX=11, and VX=5, find WZ to the nearest tenth.



$\frac{5}{11} = \frac{4}{WZ}$

$\frac{5 \cdot WZ}{5} = \frac{44}{5}$ $WZ = 8.8$

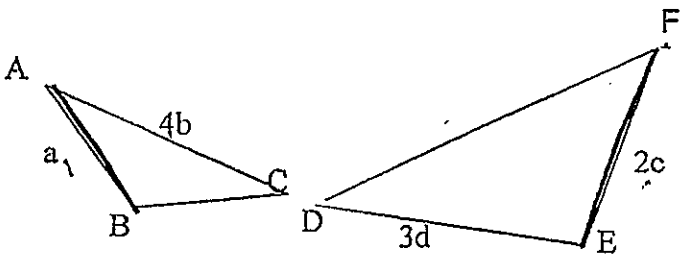
2. $\Delta MNP \sim \Delta QOP$. If PM=15, PO=10, and PQ=11, find PN to the nearest tenth.



$\frac{11}{15} = \frac{10}{PN}$

$\frac{11 \cdot PN}{11} = \frac{150}{11}$ $PN = 13.6$

3. $\Delta ABC \sim \Delta FED$. Find DF.



$\frac{a}{2c} = \frac{4b}{DF}$

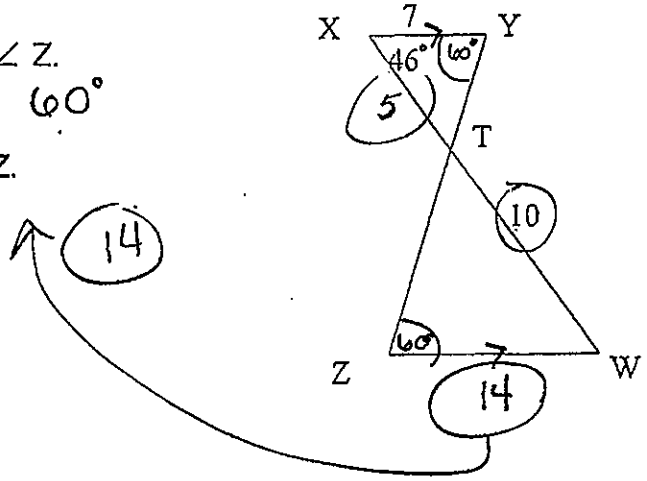
$\frac{DF \cdot a}{a} = \frac{8bc}{a}$

4. $S(\Delta XYT) = \Delta WZT$.

a. Find m∠Z.

60°

b. Find WZ.



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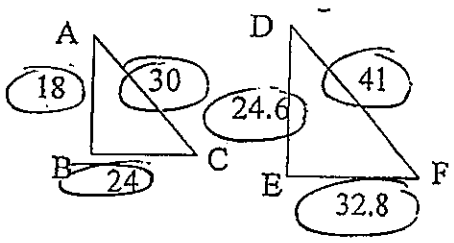
5. Are the triangles similar? Justify your answer.

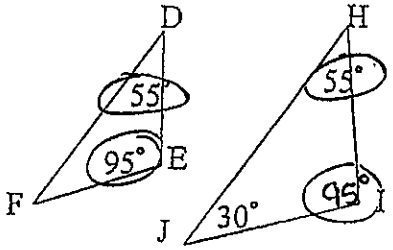


$\frac{18}{24.6}$ $\frac{24}{32.8}$ $\frac{30}{41}$

Yes SSS

6. Are the triangles similar? Justify your answer.

Yes AA



7. A flashlight beam is projecting a triangle with sides measuring 4", 5" and 6" onto a screen. If the longest side of the triangle on the screen measures 48", what are the measures of the other two sides?

$\frac{6}{48} = \frac{5}{x}$

40"
32"

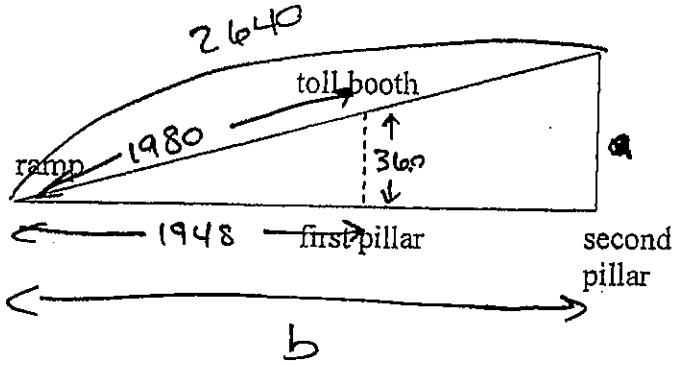
$\frac{6}{48} = \frac{4}{x}$

8. A toll booth is located three-fourths of the way up a 2,640 ft ramp as shown below. The first pillar supporting the toll booth is 360 feet high, and the distance on the ground from the lower end of the ramp to that pillar is 1,948 ft.

a. Find the height of the pillar at the end of the ramp.

$\frac{1980}{2640} = \frac{360}{a}$ $a = 480$ ft

b. What is the total ground distance from the lower end of the ramp to the upper end?



$\frac{1980}{2640} = \frac{1948}{b}$

$b = 2597.\overline{3}$ ft