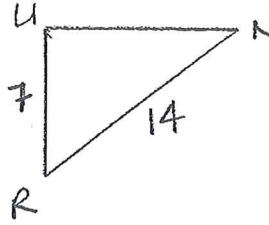
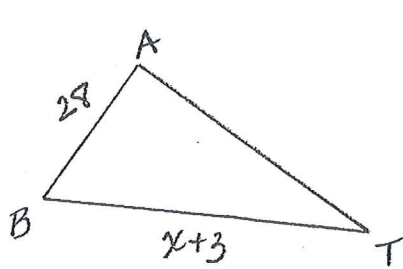


Geometry 6.2 Worksheet: Similar Polygons

Name key Per _____

1. Find x if $\triangle BAT \sim \triangle RUN$



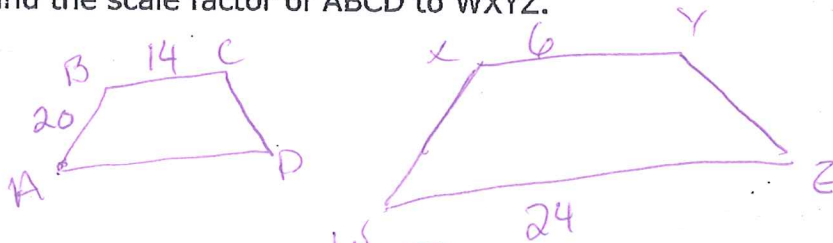
$$\frac{7}{28} = \frac{14}{x+3}$$

$$7x + 21 = 392$$

$$7x = 371$$

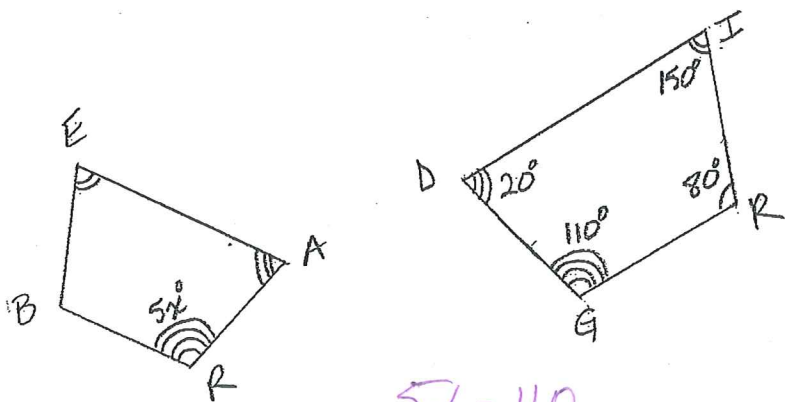
$$x = 53$$

2. Quadrilateral ABCD \sim Quadrilateral WXYZ. If $AB = 20$, $BC = 14$, $WZ = 24$, and $XY = 6$ find the scale factor of ABCD to WXYZ.



$$\left\{ \frac{14}{6} = \frac{7}{3} = 2.\bar{3} \right.$$

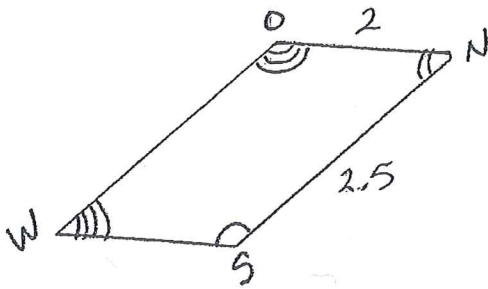
3. If Quadrilateral BEAR \sim Quadrilateral RIDG, find x .



$$\frac{5x}{5} = \frac{110}{5}$$

$$x = 22$$

4. The following pair of polygons is similar. Write a similarity statement, find x , find the measures of the indicated sides, and find the scale factor.



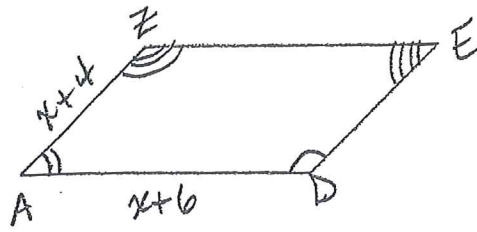
Similarity Statement: $SNOW \sim DAZE$

$x =$ 4

$DA =$ 10

$AZ =$ 8

Scale Factor: $\frac{1}{4}$



$DA = x + 6$

$DA = 10$

$AZ = x + 4$

$AZ = 8$

$$\frac{2.5}{2} = \frac{x+6}{x+4}$$

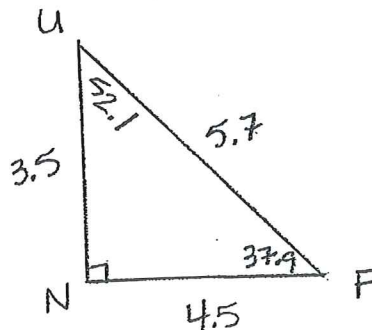
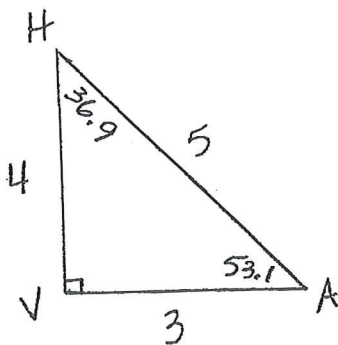
$$2.5x + 10 = 2x + 12$$

$$0.5x = 2$$

$$x = 4$$

$$\frac{2}{8} = \frac{1}{4}$$

5. Determine whether $\triangle HAV \sim \triangle FUN$. Justify your answer!



$\triangle HAV \not\sim \triangle FUN$

because all angles are not \cong .