

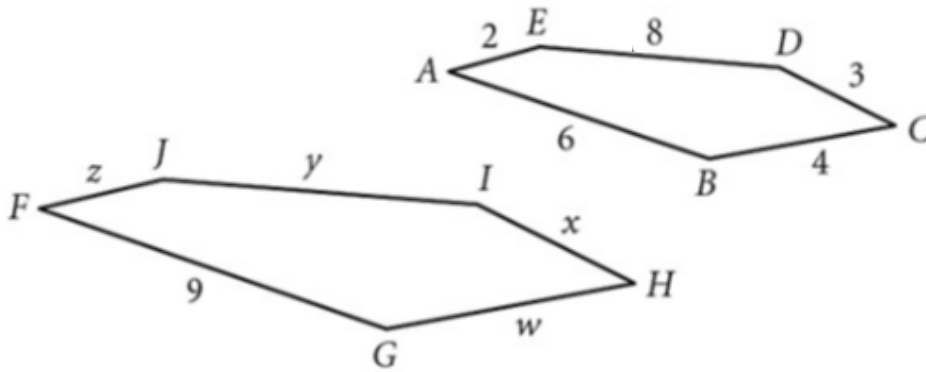
Grab a MATHO sheet from the front

AA~	6	126
SSS~	21	32
SAS~	$5\frac{1}{2}$	30
NOT SIMILAR	15	3.75
40	50	11
3	$13\frac{1}{6}$	$7\frac{1}{2}$
16	$4\frac{1}{2}$	24
9	12	$4\frac{1}{6}$

# Warm-Up

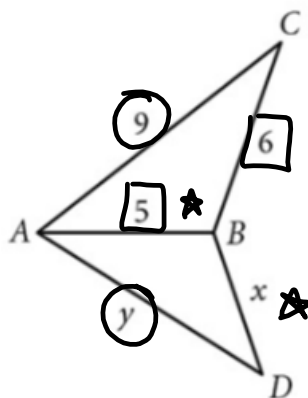
$$ABCDE \sim FGHIJ$$

$$w = \underline{\quad}, x = \underline{\quad}, y = \underline{\quad}, z = \underline{\quad}$$



$$\triangle ABC \sim \triangle DBA$$

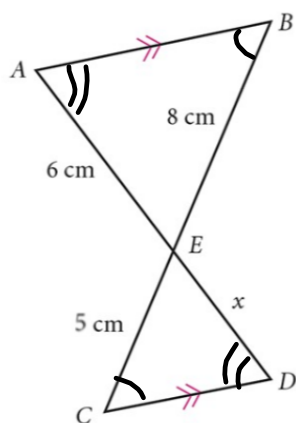
$$x = \underline{\quad}, y = \underline{\quad}$$



Katie is 6 feet tall and casts a shadow that is 2.5 feet.  
If the palm tree next to her casts a shadow of 8.75 feet,  
how tall is the palm tree?

Why is  $\triangle ABE \sim \triangle DCE$ ?

Find  $x$ .

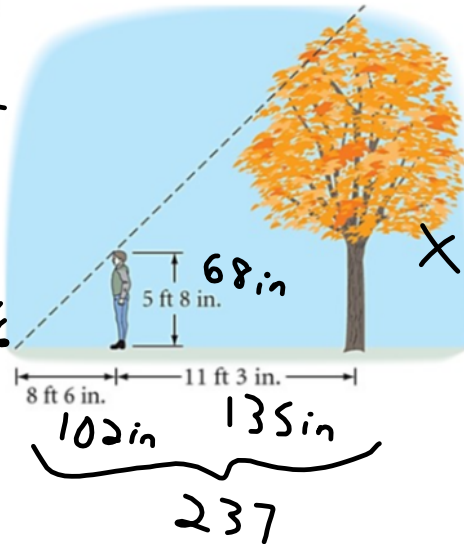


David is 5 ft 8 in. tall and wants to find the height of an oak tree in his front yard. He walks along the shadow of the tree until his head is in a position where the end of his shadow exactly overlaps the end of the tree's shadow. He is now 11 ft 3 in. from the foot of the tree and 8 ft 6 in. from the end of the shadows. How tall is the oak tree?

$$\frac{x}{68} = \frac{237}{102}$$

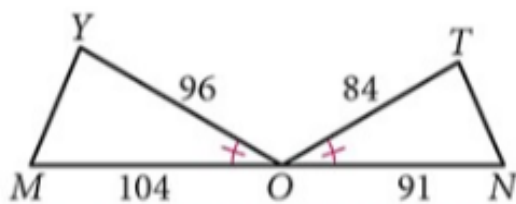
$$x = 158$$

$$x = 13\frac{1}{2}$$

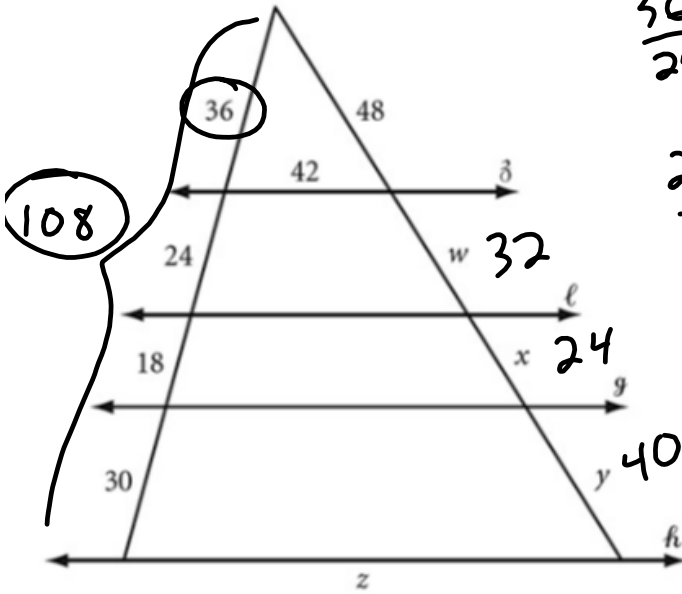


Is  $\triangle MOY \sim \triangle NOT$ ?

Explain why or why not.



$\delta \parallel \ell \parallel g \parallel h$   
 $w = ?$ ,  $x = ?$ ,  $y = ?$ ,  $z = ?$



$$\frac{36}{24} = \frac{48}{w}$$

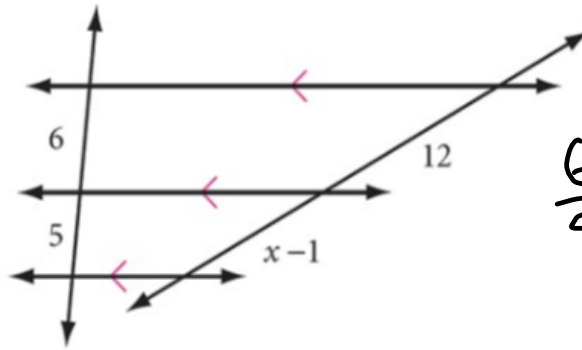
$$\frac{36}{108} = \frac{48}{z}$$

$$z = 126$$

$$\frac{24}{18} = \frac{32}{x}$$

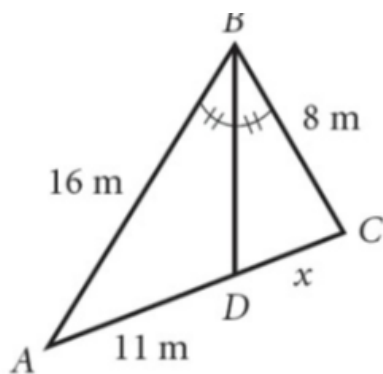
$$\frac{18}{30} = \frac{24}{y}$$

Solve for x.



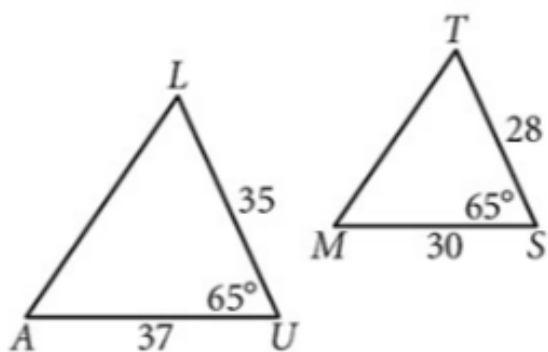
$$\frac{6}{5} = \frac{12}{x-1}$$

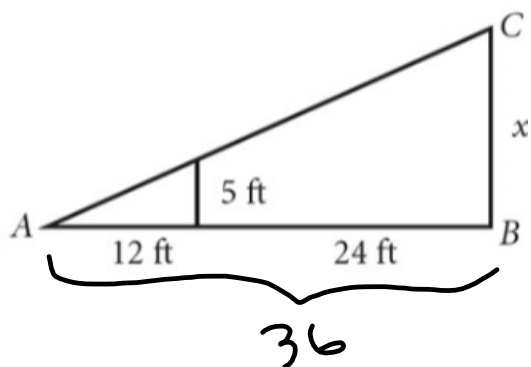
Find  $x$ .



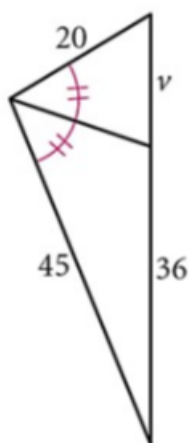
Is  $\triangle AUL \sim \triangle MST$ ?

Explain why or why not.



Find  $x$ .

$$\frac{12}{36} = \frac{5}{x}$$

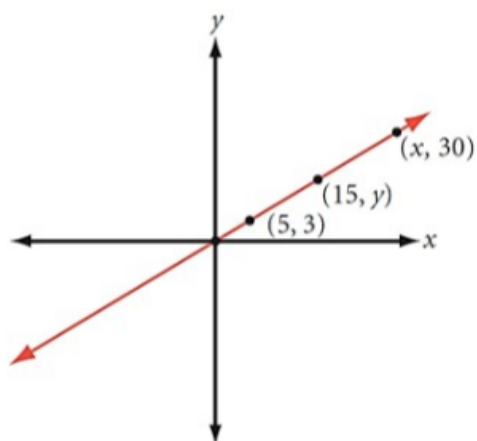
 $v = ?$ 

$$\frac{45}{36} = \frac{20}{v}$$

$$\frac{45}{20} = \frac{36}{v}$$

A 24-ft tall flagpole casts a shadow that is 10 feet tall. At the same moment, a nearby football goalpost casts a shadow of 12.5 feet. How tall is the goalpost?

Find  $x$  and  $y$ . (h)





Homework:

Study for your exam