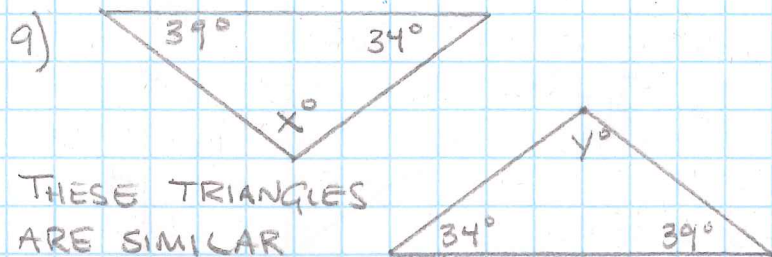
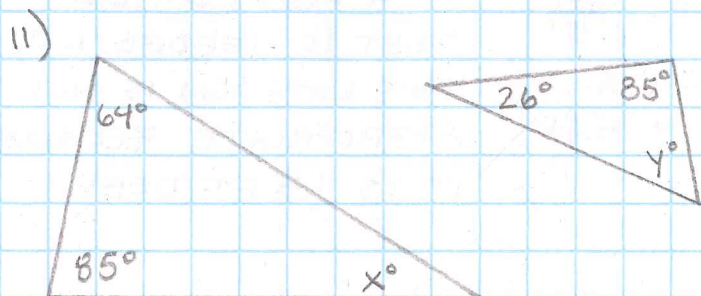


SECTION 3.4
9, 11, 12, 14, 15, 18, 19

BEN WILSON
PER 1
11/23/19

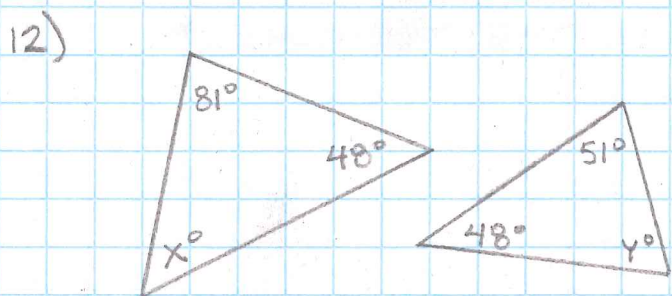


THESE TRIANGLES ARE SIMILAR BECAUSE THEY HAVE 2 PAIRS OF CONGRUENT ANGLES.



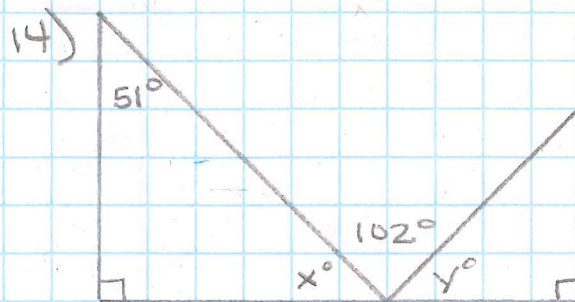
$$\begin{aligned} 64^\circ + 85^\circ + x^\circ &= 180^\circ \\ 149^\circ + x^\circ &= 180^\circ \\ -149^\circ & \quad -149^\circ \\ \hline x^\circ &= 31^\circ \end{aligned}$$

NO, THESE TRIANGLES ARE NOT SIMILAR. BECAUSE x° MUST BE 31, THE TRIANGLES ONLY HAVE 1 PAIR OF CONGRUENT ANGLES.



$$\begin{aligned} 81^\circ + 48^\circ + x^\circ &= 180^\circ \\ 129^\circ + x^\circ &= 180^\circ \\ -129^\circ & \quad -129^\circ \\ \hline x^\circ &= 51^\circ \end{aligned}$$

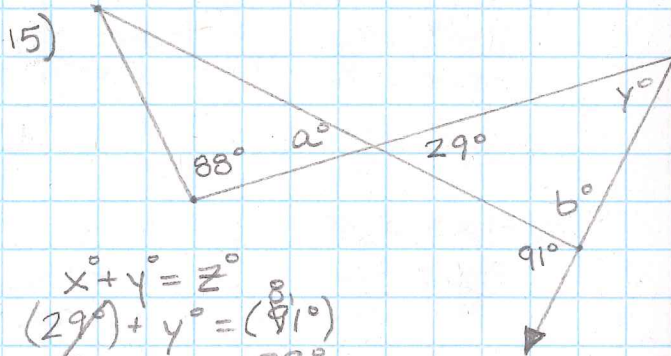
THESE TRIANGLES ARE SIMILAR BECAUSE THEY HAVE 2 PAIRS OF CONGRUENT ANGLES.



$$\begin{aligned} 51^\circ + 90^\circ + x^\circ &= 180^\circ \\ 141^\circ + x^\circ &= 180^\circ \\ -141^\circ & \quad -141^\circ \\ \hline x^\circ &= 39^\circ \end{aligned}$$

$$\begin{aligned} 39^\circ + 102^\circ + y^\circ &= 180^\circ \\ 141^\circ + y^\circ &= 180^\circ \\ -141^\circ & \quad -141^\circ \\ \hline y^\circ &= 39^\circ \end{aligned}$$

YES! THE TRIANGLES ARE SIMILAR BECAUSE THEY HAVE 2 PAIR OF CONGRUENT ANGLES.

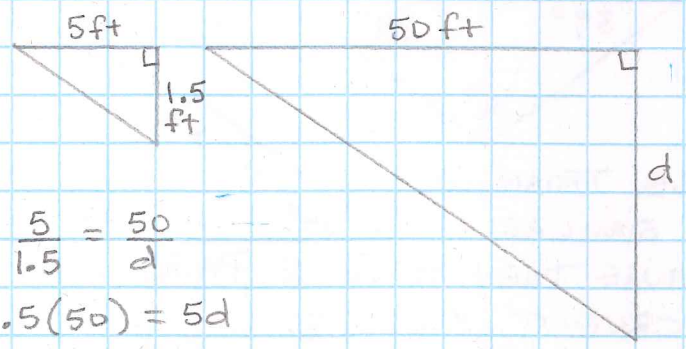
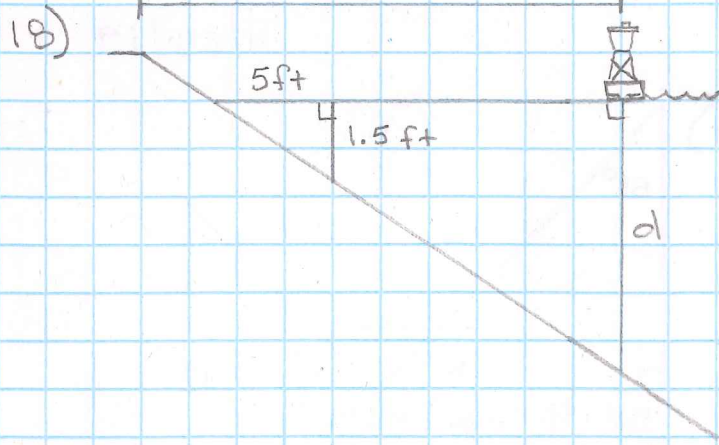


$$\begin{aligned} x^\circ + y^\circ &= z^\circ \\ (29^\circ) + y^\circ &= (91^\circ) \\ -29^\circ & \quad -29^\circ \\ \hline y^\circ &= 62^\circ \end{aligned}$$

$$\begin{aligned} 91^\circ + b^\circ &= 180^\circ \\ -91^\circ & \quad -91^\circ \\ \hline b^\circ &= 89^\circ \end{aligned}$$

THESE TRIANGLES ARE NOT SIMILAR BECAUSE THEY ONLY HAVE 1 PAIR OF CONGRUENT ANGLES.

18, 19



$$\frac{5}{1.5} = \frac{50}{d}$$

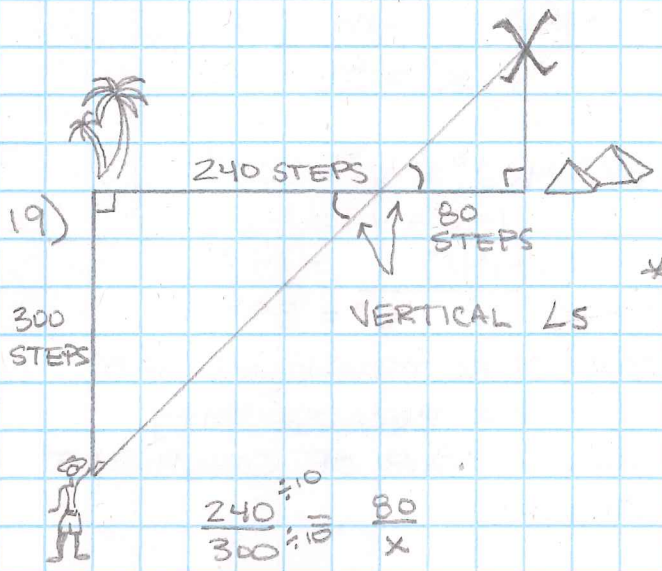
$$1.5(50) = 5d$$

$$\frac{75}{5} = \frac{5d}{5}$$

$$15 = d$$

$$d = 15 \text{ ft}$$

IF A DEPTH OF 20 FEET IS NEEDED, NO, THIS LOCATION IS NOT APPROPRIATE BECAUSE IT IS 15 FT DEEP.



THE TRIANGLES ARE SIMILAR BECAUSE THEY HAVE 2 PAIRS OF CONGRUENT ANGLES (THE 90° ANGLES & THE VERTICAL ANGLES).

$$\frac{240}{300} = \frac{80}{x}$$

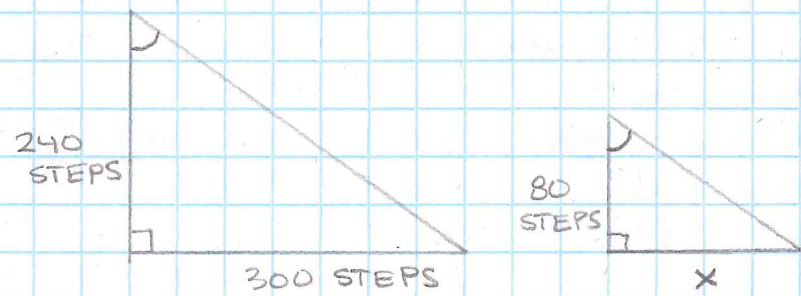
$$\frac{24 \div 6}{30 \div 6} = \frac{80}{x}$$

$$\frac{4}{5} = \frac{80}{x}$$

$$4x = 5(80)$$

$$\frac{4x}{4} = \frac{400}{4}$$

$$x = 100 \text{ STEPS.}$$



* YOU TAKE 100 STEPS FROM THE PYRAMIDS TO THE TREASURE. *