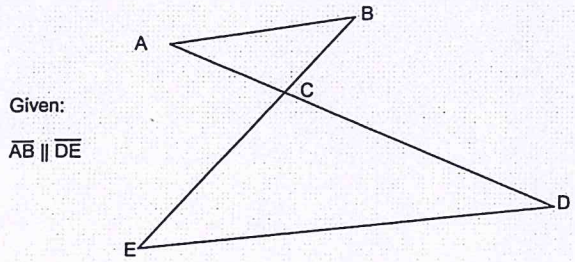
Bellwork Geometry Wednesday, March 4, 2020

1. Are these triangles similar? If so, state the reason and write the similarity statement.

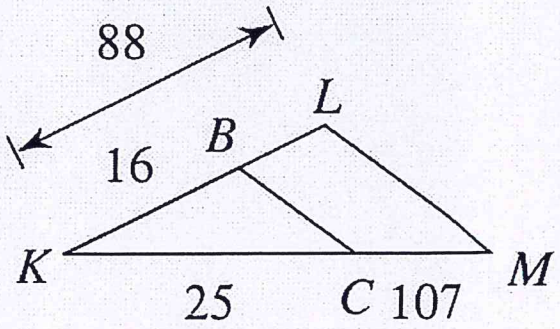
a)



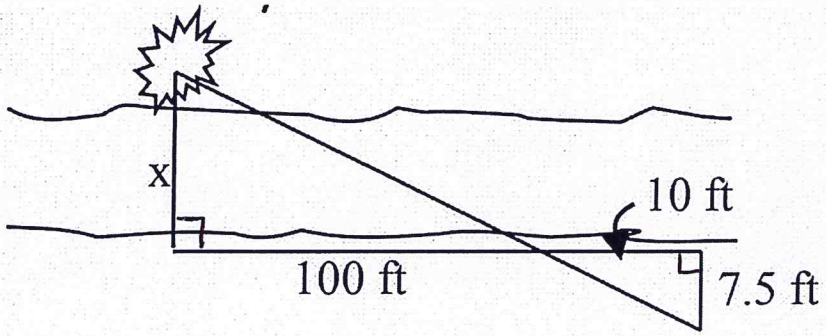
Given:

$\overline{AB} \parallel \overline{DE}$

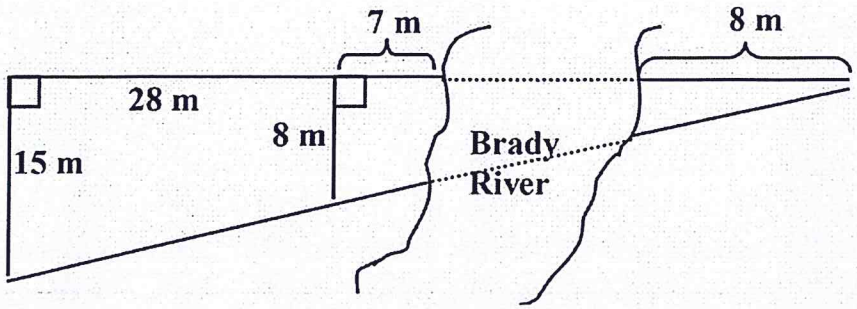
b)



2. A bush is sighted on the other side of a canyon. Find the width of the canyon.



3. Find the width of the Brady River.

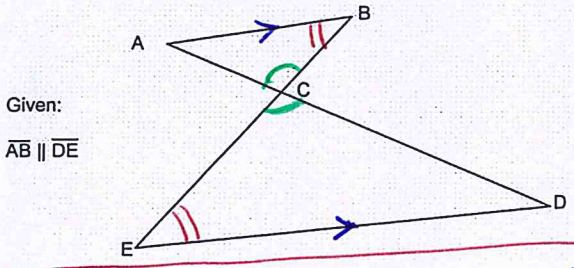


ANSWERS

Bellwork Geometry Wednesday, March 4, 2020

1. Are these triangles similar? If so, state the reason and write the similarity statement.

a)



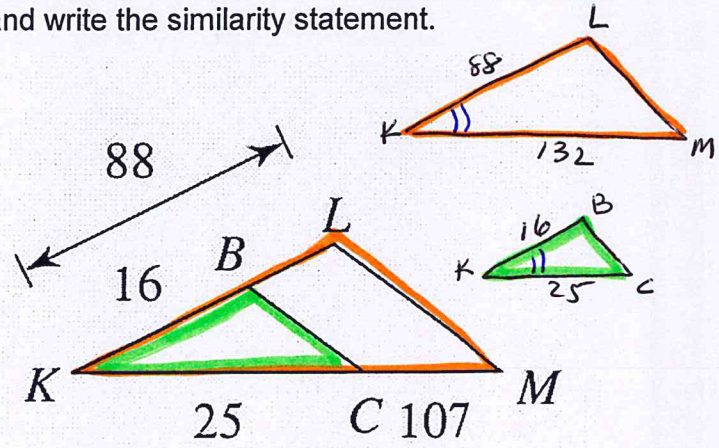
Given:

$\overline{AB} \parallel \overline{DE}$

Yes, Δ's similar by AA sim. post.

$\Delta ABC \sim \Delta DEC$

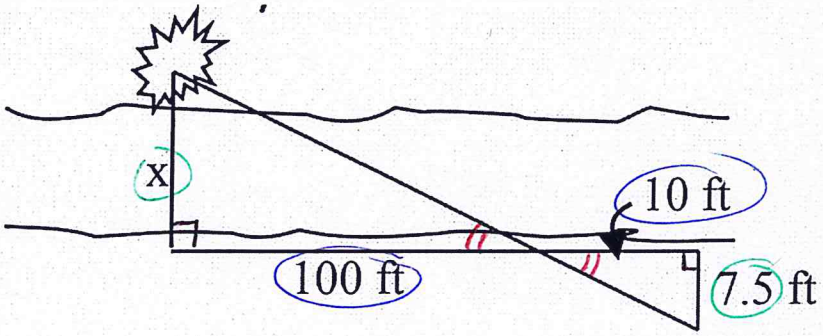
b)



$\frac{88}{16} = 5.5 \neq \frac{132}{25} = 5.28$

NO, Δs NOT similar b/c corresp. sides are not proportional

2. A bush is sighted on the other side of a canyon. Find the width of the canyon.

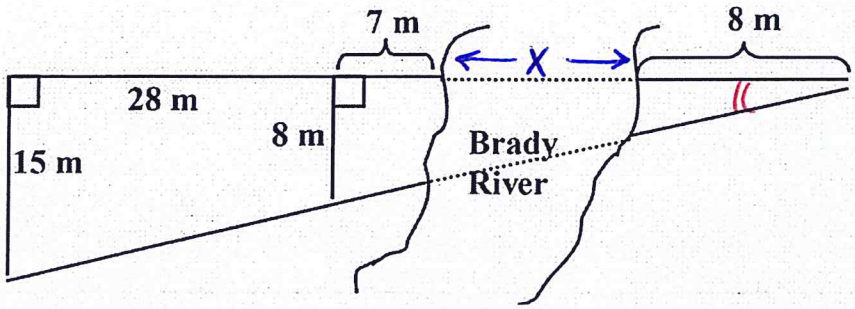


Triangles are similar by AA-Sim. Post.

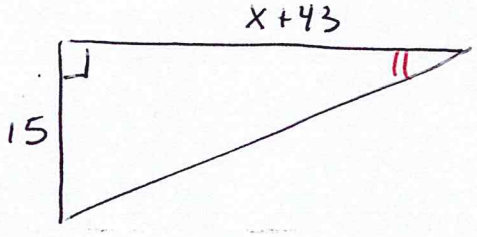
$\frac{x}{7.5} = \frac{100}{10}$

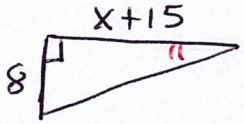
$x = 75$ ft

3. Find the width of the Brady River.



Triangles are similar by AA-Sim. Post.





$\frac{x+43}{15} = \frac{x+15}{8}$

$8(x+43) = 15(x+15)$

$8x + 344 = 15x + 225$

$-8x \quad -8x$

$344 = 7x + 225$

$-225 \quad -225$

$119 = 7x$

$x = 17$ m