

UNIT 6 CORRECTIVE ASSIGNMENT

NAME: _____

Similarity

DATE: _____

The following triangles are similar. Fill in the blank (order is important!). Find the scale factor.

1.

$\triangle ABC \sim$ _____

Scale Factor =

2.

$\triangle HGF \sim$ _____

Scale Factor =

3.

$\triangle CBA \sim$ _____

Scale Factor =

The polygons in each pair are similar. Find the missing length.

4.

5.

6.

Solve for x. The triangles in each pair are similar.

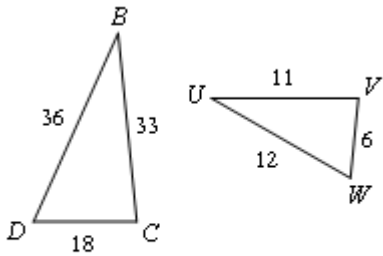
7.

8.

9.

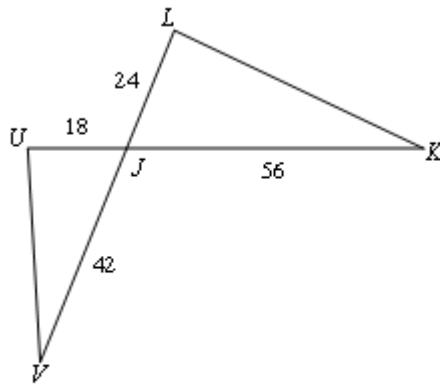
State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

10.



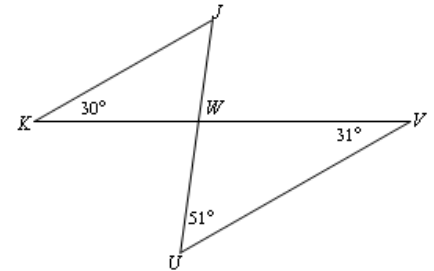
$\triangle BCD \sim$ _____

11.



$\triangle JKL \sim$ _____

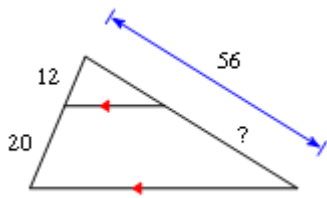
12.



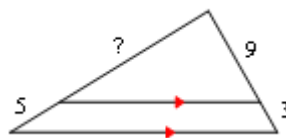
$\triangle WVU \sim$ _____

Find the missing length indicated.

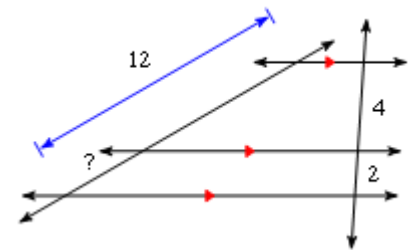
13.



14.

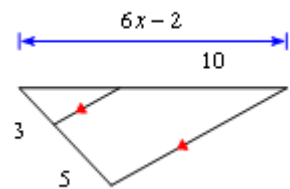


15.

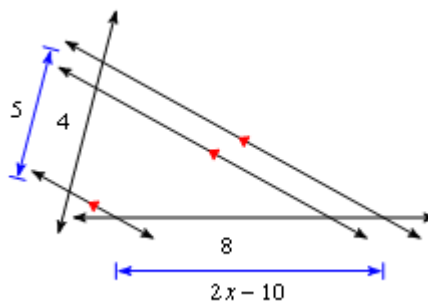


Solve for x .

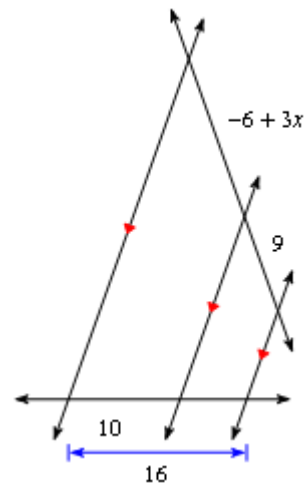
16.



17.

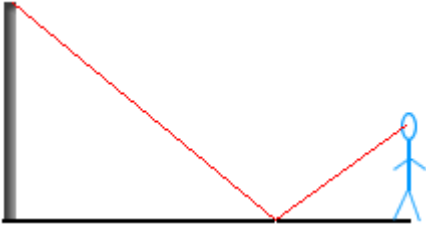


18.

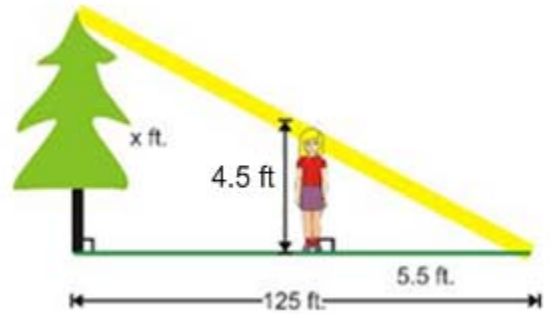


APPLICATIONS

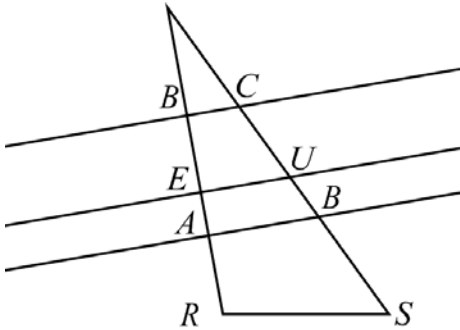
19. Bob is 6 foot tall and stands 9 feet from a mirror to find the height of the building. If the mirror is 22 feet from the building, how tall is the building?



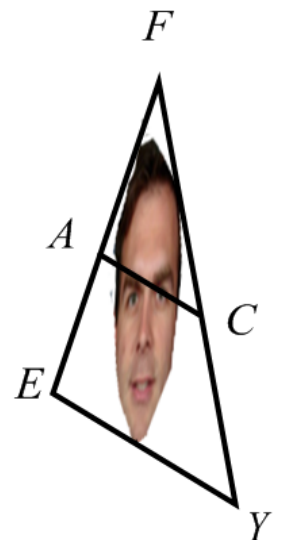
20. Sally uses her shadow to find the height of a tree. How tall is the tree?



21. A bear slices through a paper triangle with 3 perfect parallel claws so that $\overline{BC} \parallel \overline{EU} \parallel \overline{AB}$. Given $BE = 8, BA = 12, UB = 3.75$, then find CB .



22. Mr. Kelly's head can be intercepted by parallel line segments \overline{AC} and \overline{EY} . Given $FA = 2x + 1, FC = 12, AE = 9, CY = 10$. Find x and FA .



ANSWERS TO UNIT 6 REVIEW CORRECTIVE ASSIGNMENT

- 1) similar; SSS similarity, $\triangle KLM$ 2) similar; SAS similarity, $\triangle JKL$ 3) similar; SAS similarity, $\triangle CML$
4) 4 5) 24 6) 14 7) 9
8) 13 9) $x=10$ or -6 (-6 doesn't work) 10) similar; SSS similarity, $\triangle UVW$
11) similar; SAS similarity, $\triangle JUV$ 12) not similar 13) 35
14) 15 15) 4 16) 3 17) 10
18) 7

APPLICATIONS

19. 14.66 ft
20. 102.27 ft
21. 11.25
22. $x = 4.9$ and $FA = 10.8$