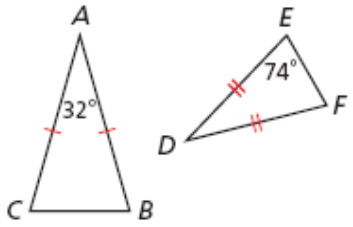
CC Geometry Semester Review Name_____
Chapter 7

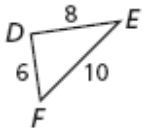
SHOW WORK

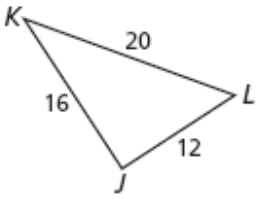
Name the similar triangles and give the similarity (AA, SAS, or SSS) you could use to prove them similar.

1.

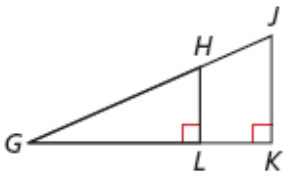


2.





3.

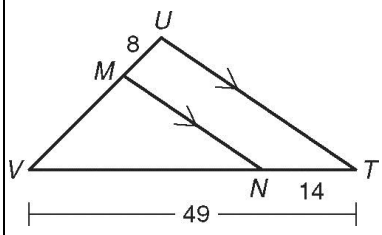


4. Name the coordinates of the image points using the dilation $(x, y) \rightarrow (4x, 4y)$
$E(-0.5, 0.5)$, $F(1, -2.5)$, $G(-2, 0.75)$

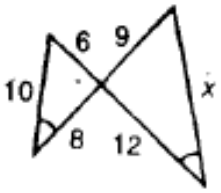
E' (,), F'(,), G' (,)

5. $\Delta MNP \sim \Delta QRS$, and the ratio of ΔMNP to ΔQRS is 7 : 3. If $MN = 42$ meters, what is QR?

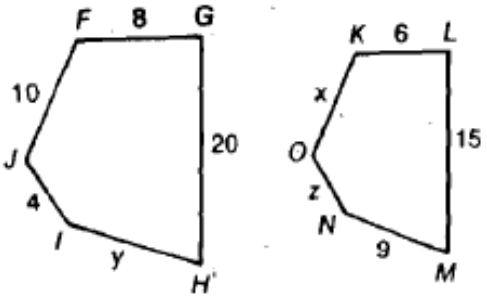
6. Find VM.



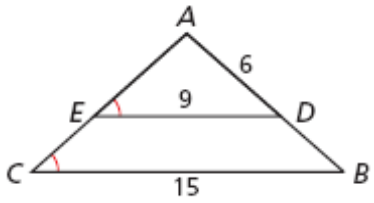
7. Find x.



8. Pentagon $FGHIJ \sim$ pentagon $KLMNO$. Find x and y. Give answers in simplest form.

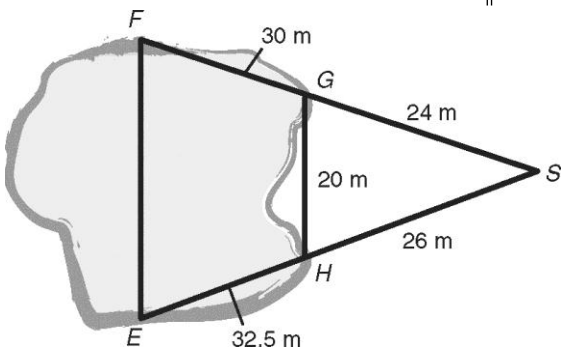


9. Find *AB*.

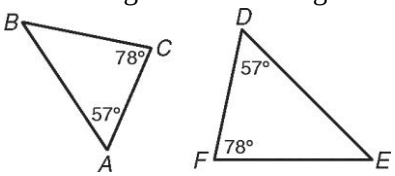


10. A visual effects model maker for a movie draws a spaceship using a ratio of 1 : 24. The drawing of the spaceship is 22 inches long. What is the length of the spaceship in the movie? Give the answer in feet.

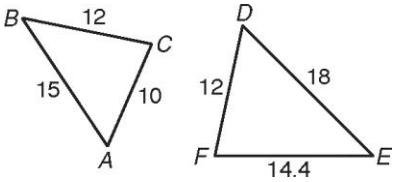
11. To measure the distance *EF* across the lake, a surveyor at *S* locates points *E*, *F*, *G*, and *H* as shown. What is *EF*, given that $\overline{EF} \parallel \overline{HG}$?



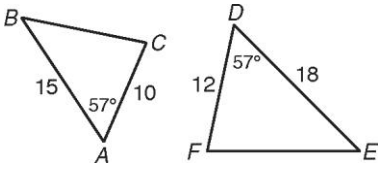
Angle-Angle (AA) Similarity If two angles of one triangle are congruent to two angles of another triangle, then the triangles are similar.



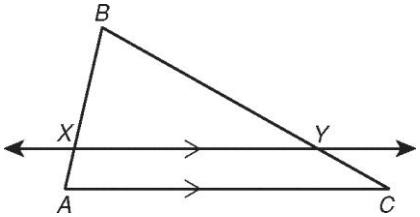
Side-Side-Side (SSS) Similarity If the three sides of one triangle are proportional to the three corresponding sides of another triangle, then the triangles are similar.



Side-Angle-Side (SAS) Similarity If two sides of one triangle are proportional to two sides of another triangle and their included angles are congruent, then the triangles are similar.



If a line parallel to a side of a triangle intersects the other two sides, then it divides those sides proportionally.



$$\frac{BX}{XA} = \frac{BY}{YC}$$