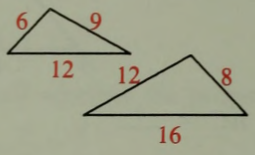
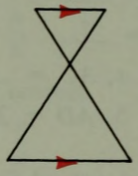
Self-Test 2

State the postulate or theorem you can use to prove that two triangles are similar.

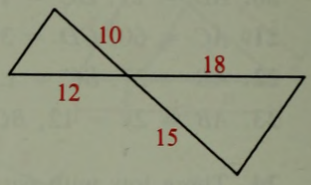
1.



2.



3.



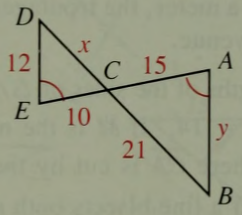
4. Complete.

a. $\triangle ABC \sim$ ___?___

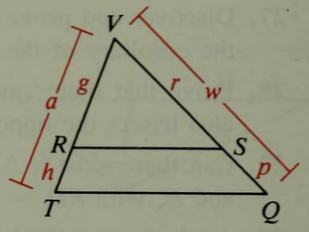
b. $\frac{AB}{?} = \frac{AC}{?} = \frac{BC}{?}$

c. $\frac{15}{?} = \frac{21}{?}$, and $x =$ ___?___

d. $\frac{15}{?} = \frac{?}{12}$, and $y =$ ___?___



In the figure, it is given that $\overline{RS} \parallel \overline{TQ}$. Complete each proportion.



5. $\frac{g}{h} = \frac{?}{p}$

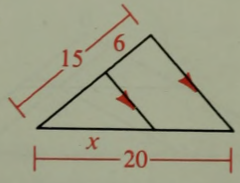
6. $\frac{a}{h} = \frac{w}{?}$

7. $\frac{r}{g} = \frac{p}{?}$

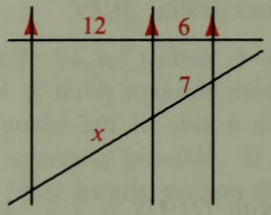
8. $\frac{h}{p} = \frac{?}{w}$

Find the value of x.

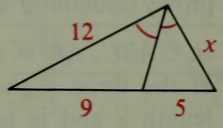
9.



10.



11.



Challenge

Given: $\overline{FD} \parallel \overline{AC}$; $\overline{BD} \parallel \overline{AE}$; $\overline{FB} \parallel \overline{EC}$

Show that B, D, and F are midpoints of $\overline{AC}$, $\overline{CE}$, and $\overline{EA}$.