

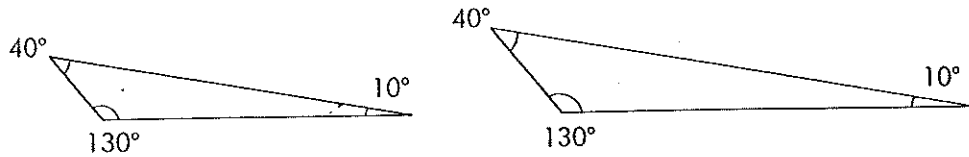
Name \_\_\_\_\_

Date \_\_\_\_\_

## Similar Figures

Similar figures have the same shape but not necessarily the same size.

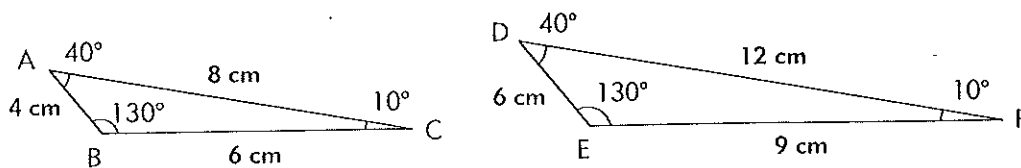
Corresponding angles of similar triangles are congruent.



Give the corresponding angles for the following using the figures below.

- a.  $\angle A \cong$  \_\_\_\_\_      b.  $\angle B \cong$  \_\_\_\_\_      c.  $\angle C \cong$  \_\_\_\_\_

Triangles are similar if corresponding angles are equal. As a result the ratios of the lengths of corresponding sides are also equal.



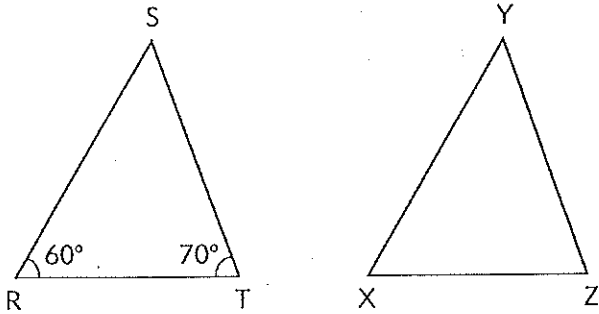
$$\frac{\text{Length } \overline{AB}}{\text{Length } \overline{DE}} = \frac{4}{6} = \frac{2}{3}$$

d.  $\frac{\text{Length } \overline{BC}}{\text{Length } \overline{EF}} =$  \_\_\_\_\_

e.  $\frac{\text{Length } \overline{AC}}{\text{Length } \overline{DF}} =$  \_\_\_\_\_

## Similar Figures, continued

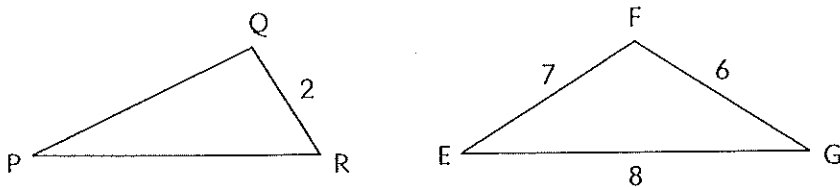
Triangle RST and triangle XYZ are similar.



Find the measure of each angle.

- a.  $\angle S$  \_\_\_\_\_
- b.  $\angle X$  \_\_\_\_\_
- c.  $\angle Z$  \_\_\_\_\_
- d.  $\angle Y$  \_\_\_\_\_

Triangle PQR and triangle EFG are similar.



Write the corresponding sides.

- e.  $\overline{PQ} \leftrightarrow$  \_\_\_\_\_
- f.  $\overline{QR} \leftrightarrow$  \_\_\_\_\_
- g.  $\overline{PR} \leftrightarrow$  \_\_\_\_\_

Find the length of each side.

- h. side  $\overline{PQ} =$  \_\_\_\_\_
- i. side  $\overline{PR} =$  \_\_\_\_\_