

# Reteaching 5-1

## Midsegments of Triangles

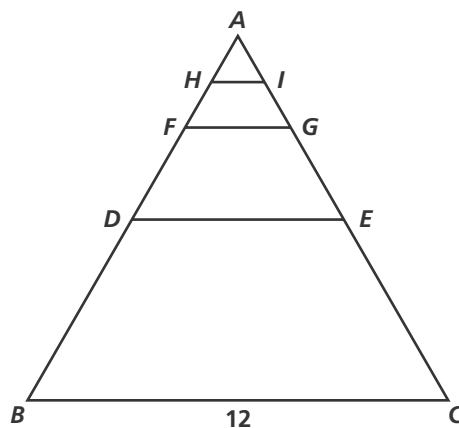
**OBJECTIVE:** Using properties of midsegments to solve problems

**MATERIALS:** Ruler

### Example

$\overline{DE}$  is the midsegment of  $\triangle ABC$ .  $\overline{FG}$  is the midsegment of  $\triangle ADE$ .  $\overline{HI}$  is the midsegment of  $\triangle AFG$ . If  $BC = 12$ , find  $DE$ ,  $FG$ , and  $HI$ .

$$\begin{array}{lll}
 DE = \frac{1}{2}BC & FG = \frac{1}{2}DE & HI = \frac{1}{2}FG \\
 = \frac{1}{2}(12) & = \frac{1}{2}(6) & = \frac{1}{2}(3) \\
 = 6 & = 3 & = 1.5
 \end{array}$$



### Exercises

Follow the indicated steps to complete each exercise.

- Draw a triangle. Label it  $\triangle XYZ$ .
- Draw the midsegment of  $\triangle XYZ$  parallel to  $\overline{YZ}$ . Label it  $\overline{MN}$ .
- Draw the midsegment of  $\triangle XMN$  parallel to  $\overline{MN}$ . Label it  $\overline{PQ}$ .
- Draw the midsegment of  $\triangle XPQ$  parallel to  $\overline{PQ}$ . Label it  $\overline{RS}$ .

1. If  $RS = 4$ , find the following lengths.

a.  $PQ$

b.  $MN$

c.  $YZ$

- Draw a triangle. Label it  $\triangle PUV$ .
- Draw the midsegment of  $\triangle PUV$  parallel to  $\overline{UV}$ . Label it  $\overline{ST}$ .
- Draw the midsegment of  $\triangle PST$  parallel to  $\overline{ST}$ . Label it  $\overline{QR}$ .
- Draw the midsegment of  $\triangle PQR$  parallel to  $\overline{QR}$ . Label it  $\overline{NO}$ .

2. If  $QR = 5$ , find the following lengths.

a.  $NO$

b.  $ST$

c.  $UV$

3. If  $NO = 2$ , find the following lengths.

a.  $QR$

b.  $ST$

c.  $UV$