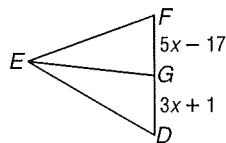


# 5-1 Skills Practice

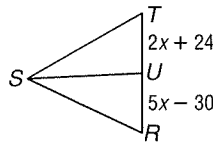
## Bisectors, Medians, and Altitudes

**ALGEBRA** For Exercises 1–4, use the given information to find each value.

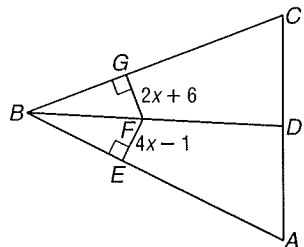
1. Find  $x$  if  $\overline{EG}$  is a median of  $\triangle DEF$ .



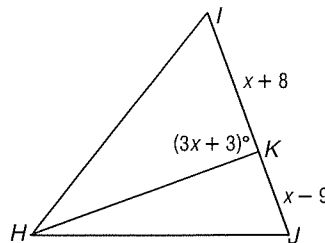
2. Find  $x$  and  $RT$  if  $\overline{SU}$  is a median of  $\triangle RST$ .



3. Find  $x$  and  $EF$  if  $\overline{BD}$  is an angle bisector.

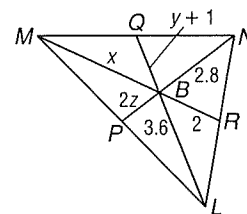


4. Find  $x$  and  $IJ$  if  $\overline{HK}$  is an altitude of  $\triangle HIJ$ .



**ALGEBRA** For Exercises 5–7, use the following information.

In  $\triangle LMN$ ,  $P$ ,  $Q$ , and  $R$  are the midpoints of  $\overline{LM}$ ,  $\overline{MN}$ , and  $\overline{LN}$ , respectively.



5. Find  $x$ .

6. Find  $y$ .

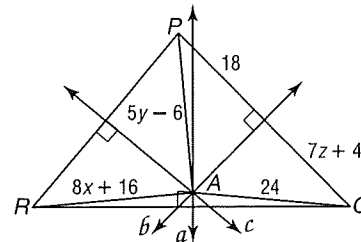
7. Find  $z$ .

**ALGEBRA** Lines  $a$ ,  $b$ , and  $c$  are perpendicular bisectors of  $\triangle PQR$  and meet at  $A$ .

8. Find  $x$ .

9. Find  $y$ .

10. Find  $z$ .



**COORDINATE GEOMETRY** The vertices of  $\triangle HIJ$  are  $G(1, 0)$ ,  $H(6, 0)$ , and  $I(3, 6)$ . Find the coordinates of the points of concurrency of  $\triangle HIJ$ .

11. orthocenter

12. centroid

13. circumcenter