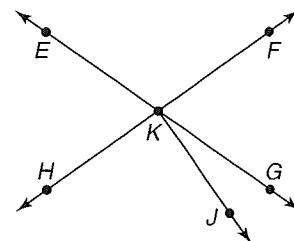


# 1-5 Skills Practice

## Angle Relationships

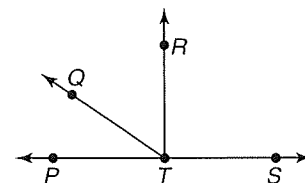
For Exercises 1–6, use the figure at the right and a protractor.



1. Name two acute vertical angles.
2. Name two obtuse vertical angles.
3. Name a linear pair.
4. Name two acute adjacent angles.
5. Name an angle complementary to  $\angle EKH$ .
6. Name an angle supplementary to  $\angle FKG$ .
7. Find the measures of an angle and its complement if one angle measures 18 degrees more than the other.
8. The measure of the supplement of an angle is 36 less than the measure of the angle. Find the measures of the angles.

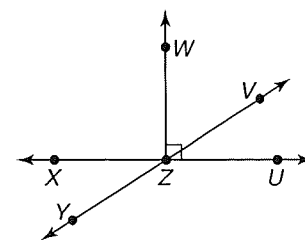
**ALGEBRA** For Exercises 9–10, use the figure at the right.

9. If  $m\angle RTS = 8x + 18$ , find  $x$  so that  $\overline{TR} \perp \overline{TS}$ .
10. If  $m\angle PTQ = 3y - 10$  and  $m\angle QTR = y$ , find  $y$  so that  $\angle PTR$  is a right angle.



**Determine whether each statement can be assumed from the figure. Explain.**

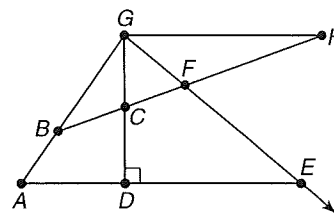
11.  $\angle WZU$  is a right angle.
12.  $\angle YZU$  and  $\angle UZV$  are supplementary.
13.  $\angle VZU$  is adjacent to  $\angle YZX$ .



# 1-5 Practice

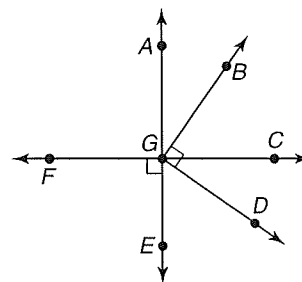
## Angle Relationships

For Exercises 1–4, use the figure at the right and a protractor.



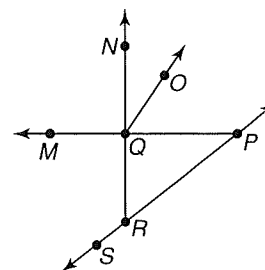
- Name two obtuse vertical angles.
- Name a linear pair whose vertex is  $B$ .
- Name an angle not adjacent to but complementary to  $\angle FGC$ .
- Name an angle adjacent and supplementary to  $\angle DCB$ .
- Two angles are complementary. The measure of one angle is 21 more than twice the measure of the other angle. Find the measures of the angles.
- If a supplement of an angle has a measure 78 less than the measure of the angle, what are the measures of the angles?

**ALGEBRA** For Exercises 7–8, use the figure at the right.



- If  $m\angle FGE = 5x + 10$ , find  $x$  so that  $\overline{FC} \perp \overline{AE}$ .
- If  $m\angle BGC = 16x - 4$  and  $m\angle CGD = 2x + 13$ , find  $x$  so that  $\angle BGD$  is a right angle.

Determine whether each statement can be assumed from the figure. Explain.



- $\angle NQO$  and  $\angle OQP$  are complementary.
- $\angle SRQ$  and  $\angle QRP$  is a linear pair.
- $\angle MQN$  and  $\angle MQR$  are vertical angles.
- STREET MAPS** Darren sketched a map of the cross streets nearest to his home for his friend Miguel. Describe two different angle relationships between the streets.

