1-5
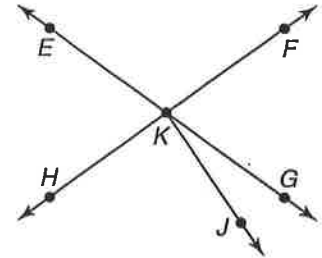
Skills Practice

Angle Relationships

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

1. Name two acute vertical angles.

   $\angle EKH, \angle FKG$

2. Name two obtuse vertical angles.

   $\angle EKF, \angle HKG$

3. Name a linear pair.

   example: $\angle EKH, \angle EKF$

4. Name two acute adjacent angles.

   $\angle FKG, \angle GKJ$

5. Name an angle complementary to $\angle EKH$.

   $\angle GKJ$

6. Name an angle supplementary to $\angle FKG$.
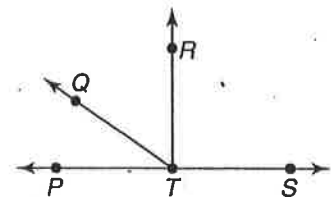
   $\angle EKF$ OR $\angle GKH$

7. Find the measures of an angle and its complement if one angle measures 18 degrees more than the other.

   36, 54

8. The measure of the supplement of an angle is 36 less than the measure of the angle. Find the measures of the angles.

   72, 108

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

9. If $m\angle RTS = 8x + 18$, find x so that $\overrightarrow{TR} \perp \overrightarrow{TS}$.

   9

10. If $m\angle PTQ = 3y - 10$ and $m\angle QTR = y$, find y so that $\angle PTR$ is a right angle.

    25

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

11. $\angle WZU$ is a right angle.

    yes, it is. marked with a right angle symbol.

12. $\angle YZU$ and $\angle UZV$ are supplementary.

    yes, the sum of their measures is 180 since the angles form a linear pair.

13. $\angle VZU$ is adjacent to $\angle YZX$.

    No, the angles don't share a common side.

Lesson 1-5