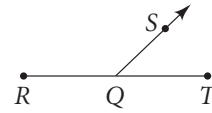


# 1-6 • Guided Problem Solving

## GPS Student Page 41, Exercise 47

- Algebra** Solve for  $x$  if  $m\angle RQS = 2x + 4$  and  $m\angle TQS = 6x + 20$ .
- What is  $m\angle RQS$ ?  $m\angle TQS$ ?
- Show how you can check your answer.



### Read and Understand

- What postulate can we use to solve the problem? \_\_\_\_\_
- What do we call the pair of angles  $\angle RQS$  and  $\angle TQS$ ? \_\_\_\_\_

### Plan and Solve

- Use the postulate from Step 1 to write an equation using the angles in the diagram.  
\_\_\_\_\_
- Next, make substitutions in this equation, using the information given.  
\_\_\_\_\_
- Solve for  $x$ . \_\_\_\_\_
- Use your answer from Step 5 to find  $\angle RQS$  and  $\angle TQS$ . \_\_\_\_\_

### Look Back and Check

- What is one way to check your answer? \_\_\_\_\_

### Solve Another Problem

- Algebra** Solve for  $x$  if  $m\angle AOB = 2x - 5$  and  $m\angle COB = 6x + 7$ . \_\_\_\_\_
- What is  $m\angle AOB$ ?  $m\angle COB$ ?  
\_\_\_\_\_

