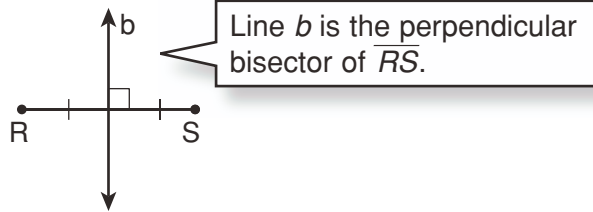


LESSON

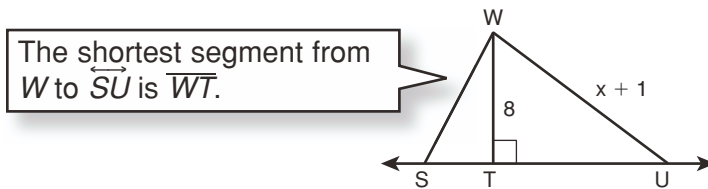
Review for Mastery

3-4 Perpendicular Lines

The **perpendicular bisector** of a segment is a line perpendicular to the segment at the segment's midpoint.



The **distance from a point to a line** is the length of the shortest segment from the point to the line. It is the length of the perpendicular segment that joins them.



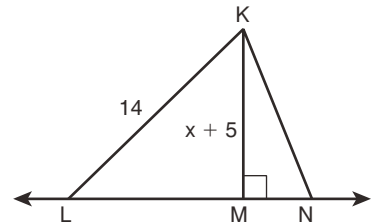
You can write and solve an inequality for x .

$$\begin{array}{ll}
 WU > WT & \overline{WT} \text{ is the shortest segment.} \\
 x + 1 > 8 & \text{Substitute } x + 1 \text{ for } WU \text{ and } 8 \text{ for } WT. \\
 \underline{-1 \quad -1} & \text{Subtract 1 from both sides of the equality.} \\
 x > 7 &
 \end{array}$$

Use the figure for Exercises 1 and 2.

1. Name the shortest segment from point K to \overleftrightarrow{LN} .

2. Write and solve an inequality for x .



Use the figure for Exercises 3 and 4.

3. Name the shortest segment from point Q to \overleftrightarrow{GH} .

4. Write and solve an inequality for x .

