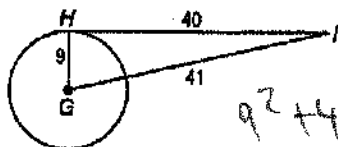


10-5 Skills Practice

Tangents

Determine whether each segment is tangent to the given circle. Justify your answer.

1. $\overline{HI}$

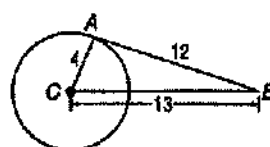


$$9^2 + 40^2 = 41^2$$

$$81 + 1600 = 1681$$

Yes!

2. $\overline{AB}$



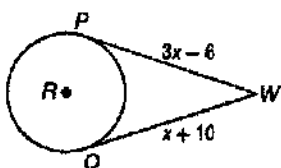
$$4^2 + 12^2$$

$$16 + 144 \neq 169$$

Nope!

Find x . Assume that segments that appear to be tangent are tangent. Round to the nearest tenth if necessary.

3.



$$3x-6 = x+10$$

$$-x \quad -x$$

$$2x-6 = 10$$

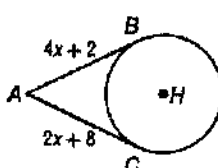
$$+6 \quad +6$$

$$2x = 16$$

$$\frac{2x}{2} = \frac{16}{2}$$

$$x = 8$$

4.



$$4x+2 = 2x+8$$

$$-2x \quad -2x$$

$$2x+2 = 8$$

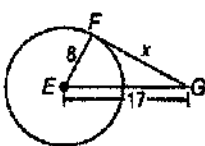
$$-2 \quad -2$$

$$2x = 6$$

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3$$

5.



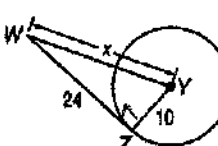
$$8^2 + x^2 = 17^2$$

$$64 + x^2 = 289$$

$$x^2 = 225$$

$$x = 15$$

6.



$$x^2 = 10^2 + 24^2$$

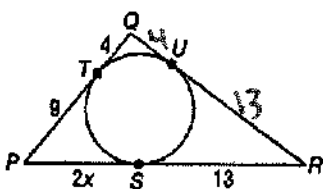
$$x^2 = 100 + 576$$

$$\sqrt{x^2} = \sqrt{676}$$

$$x = 26$$

For each figure, find x . Then find the perimeter.

7.

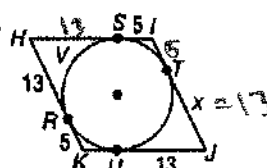


$$x = 45$$

$$9 + 4 + 4 + 13 + 13 + 9$$

$$52$$

8.



$$18 \cdot 4 = 72$$

