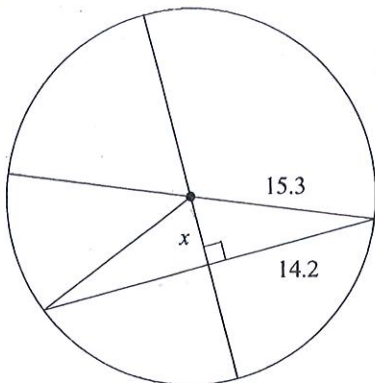


Quiz Review - Segments in Circles

Find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

1)



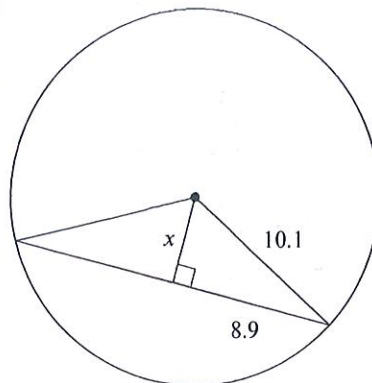
$$x^2 + 14.2^2 = 15.3^2$$

$$x^2 + 201.64 = 234.09$$

$$x^2 = 32.45$$

$$x \approx 5.7$$

2)



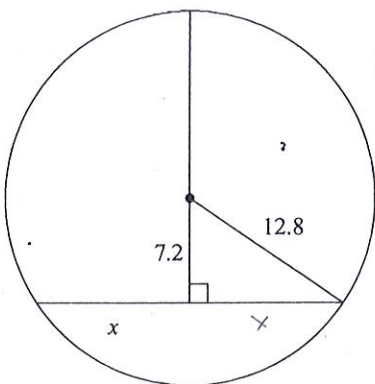
$$x^2 + 8.9^2 = 10.1^2$$

$$x^2 + 79.21 = 102.01$$

$$x^2 = 22.8$$

$$x \approx 4.8$$

3)



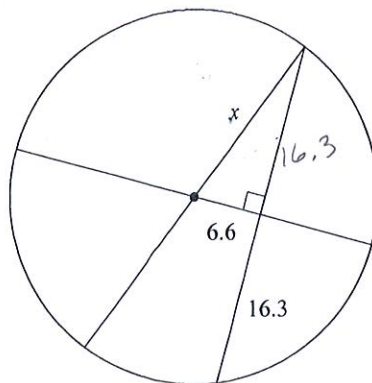
$$x^2 + 7.2^2 = 12.8^2$$

$$x^2 + 51.84 = 163.84$$

$$x^2 = 112$$

$$x = 4\sqrt{7} \text{ or } \approx 10.6$$

4)



$$6.6^2 + 16.3^2 = x^2$$

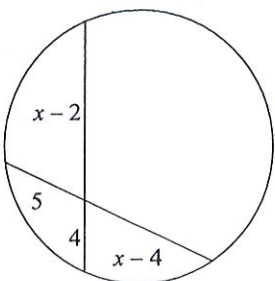
$$43.56 + 265.69 = x^2$$

$$309.25 = x^2$$

$$x \approx 17.6$$

Solve for x. Assume that lines which appear tangent are tangent.

5)

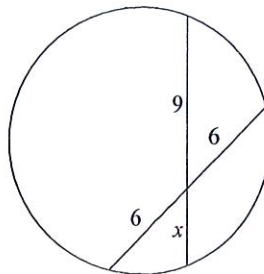


$$4(x-2) = 5(x-4)$$

$$4x-8 = 5x-20$$

$$12 = x$$

6)

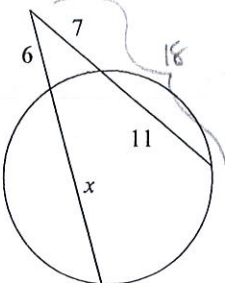


$$9x = 6 \cdot 6$$

$$9x = 36$$

$$x = 4$$

7)



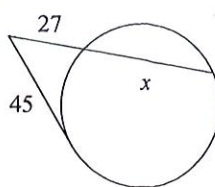
$$6(x+6) = 7(18)$$

$$6x+36 = 126$$

$$6x = 90$$

$$x = 15$$

8)



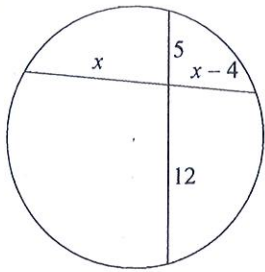
$$27(x+27) = 45^2$$

$$27x+729 = 2025$$

$$27x = 1296$$

$$x = 48$$

9)



$$x(x-4) = 5(12)$$

$$x^2 - 4x = 60$$

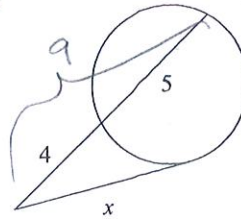
$$x^2 - 4x - 60 = 0$$

$$(x-10)(x+6) = 0$$

$$x-10=0 \quad x+6=0$$

$$\boxed{x=10} \quad x = -6$$

10)

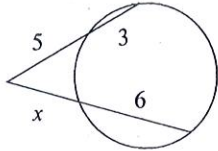


$$x^2 = 4(9)$$

$$x^2 = 36$$

$$\boxed{x=6}$$

11)



$$x(x+6) = 5(8)$$

$$x^2 + 6x = 40$$

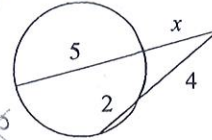
$$x^2 + 6x - 40 = 0$$

$$(x+10)(x-4) = 0$$

$$x = -10 \quad x = 4$$

$$\boxed{x=4}$$

12)



$$x(x+5) = 4(6)$$

$$x^2 + 5x = 24$$

$$x^2 + 5x - 24 = 0$$

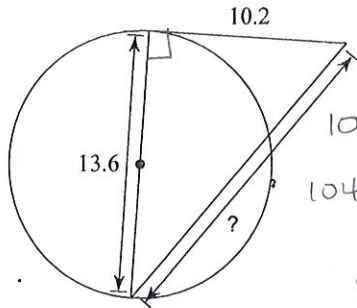
$$(x+8)(x-3) = 0$$

$$x = -8 \quad x = 3$$

$$\boxed{x=3}$$

Find the segment length indicated. Assume that lines which appear to be tangent are tangent.

13)



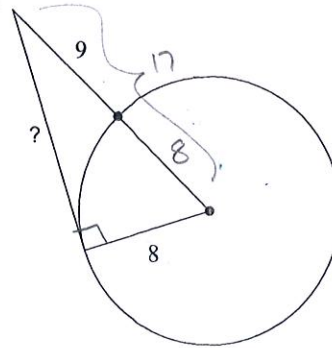
$$10.2^2 + 13.6^2 = x^2$$

$$104.04 + 184.96 = x^2$$

$$289 = x^2$$

$$\boxed{x=17}$$

14)



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

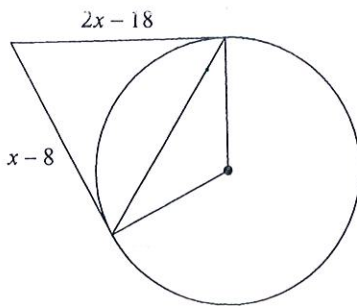
$$64 + x^2 = 289$$

$$x^2 = 225$$

$$\boxed{x=15}$$

Solve for x. Assume that lines which appear to be tangent are tangent.

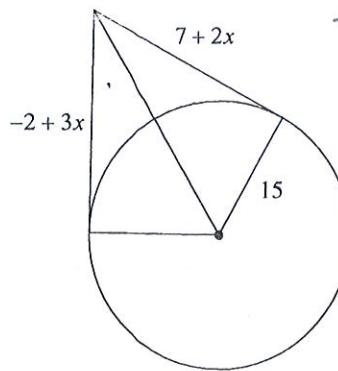
15)



$$2x-18 = x-8$$

$$\boxed{x=10}$$

16)

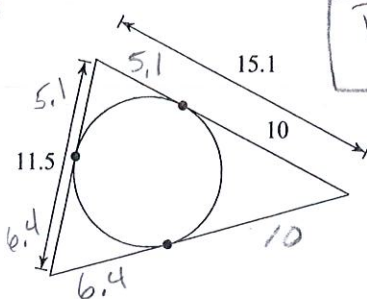


$$-2+3x = 7+2x$$

$$\boxed{x=9}$$

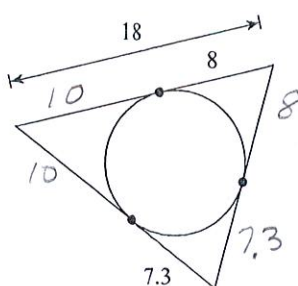
Find the perimeter of each polygon. Assume that lines which appear to be tangent are tangent.

17)



$$\boxed{\text{Perimeter} = 43}$$

18)



$$\boxed{\text{Perimeter} = 50.6}$$