Skills Practice

Find the value of the missing variable.

1.

$6(3) = 9(x)$

$\dfrac{18}{9} = \dfrac{9x}{9}$

$\boxed{2 = X}$

2.
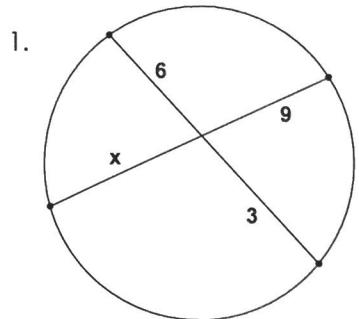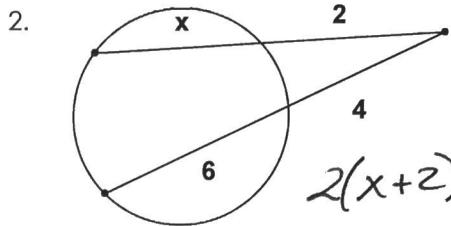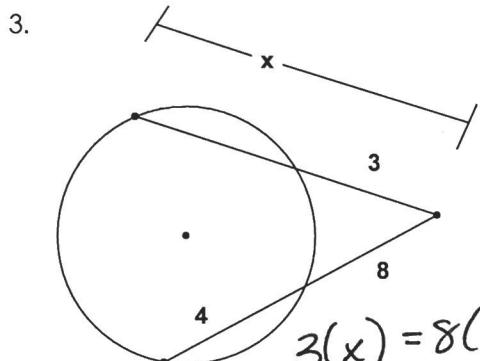
$2(x+2) = 4(\overset{\frown}{6+4})$

$2x + 4 = 24 + 16$

$2x + 4 = 40$

$\quad -4 \qquad -4$

$2x = 38$

$\boxed{x = 19}$

3.

$3(x) = 8(4+8)$

$3x = 32 + 64$

$3x = 96$

$\boxed{x = 32}$

4.
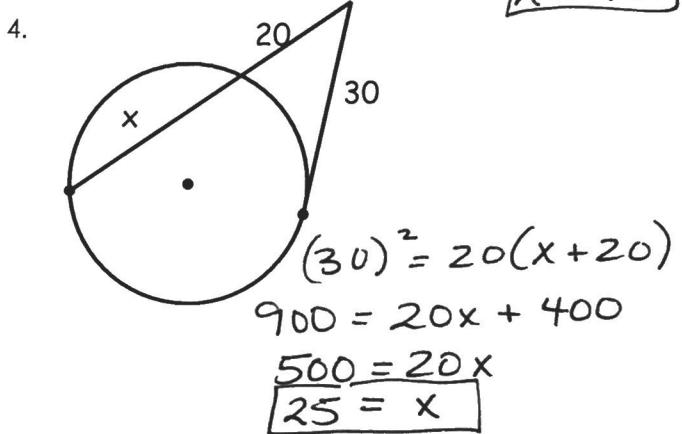
$(30)^2 = 20(x+20)$

$900 = 20x + 400$

$500 = 20x$

$\boxed{25 = x}$

5.
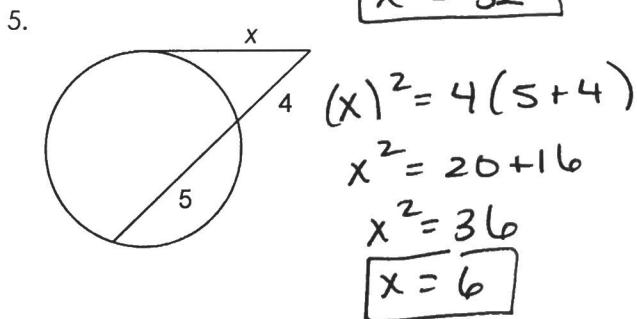
$(x)^2 = 4(5+4)$

$x^2 = 20 + 16$

$x^2 = 36$

$\boxed{x = 6}$
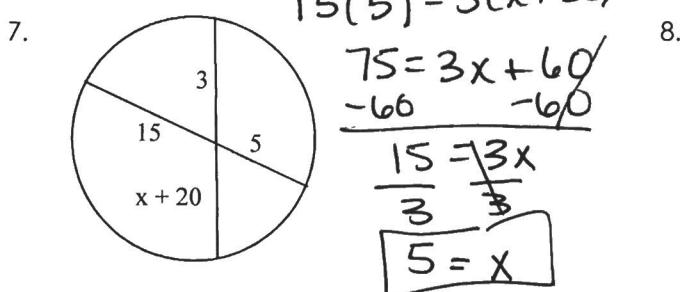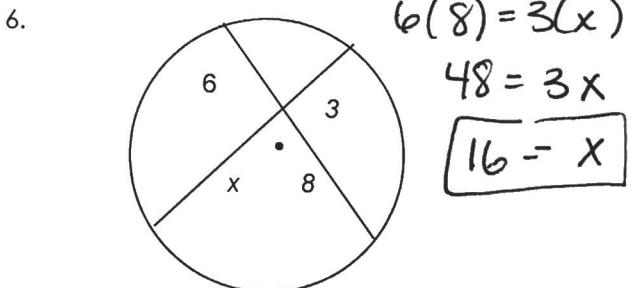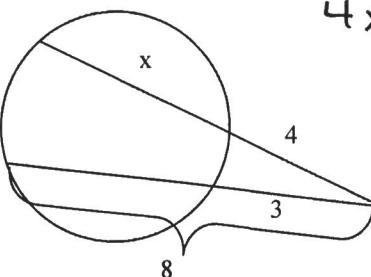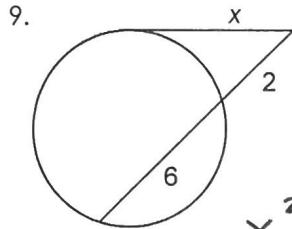
6.

$6(8) = 3(x)$

$48 = 3x$

$\boxed{16 = X}$

7.

$15(5) = 3(x+20)$

$75 = 3x + 60$

$-60 \qquad -60$

$\dfrac{15}{3} = \dfrac{3x}{3}$

$\boxed{5 = X}$

8.

$4(x+4) = 3(8)$

$4x + 16 = 24$

$4x = 8$

$\boxed{x = 2}$

17

9.

$x^2 = 2(6+2)$

$x^2 = 2(8)$

$x^2 = 16$

$\boxed{x = 4}$

10.

$5x - 4 = 2x + 2$

$\underline{-2x \qquad -2x}$

$3x - 4 = 2$

$\underline{+4 \quad +4}$

$\dfrac{3x}{3} = \dfrac{6}{3}$

$\boxed{x = 2}$
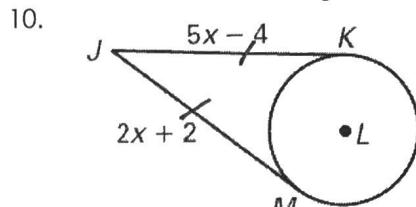
Arc Length

In 7th grade, you learned how to calculate the circumference of a circle. You also learned that the circumference of a circle divided by the diameter is equal to pi. The circumference of a circle is the distance around the circle.
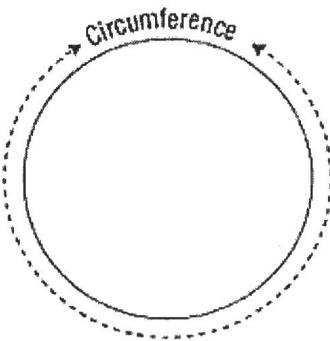
Circumference

$C = 2\pi r$ or $C = \pi d$

Practice reviewing how to calculate the circumference or radius/diameter of a circle below. Leave your answers in terms of pi. Find the circumference, radius, or diameter.

A. $r = 6$ ft
B. $d = 15$ in
C. $C = 16\pi$ cm
D. $C = 40\pi$ m