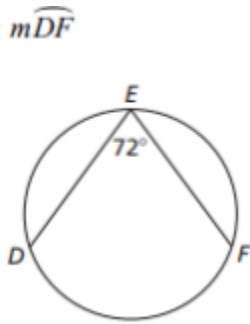
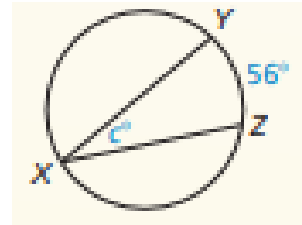


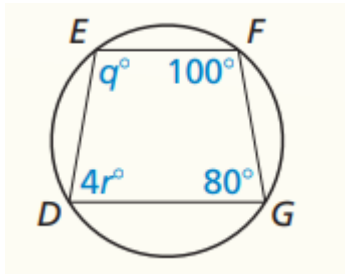
Find the indicated measure:



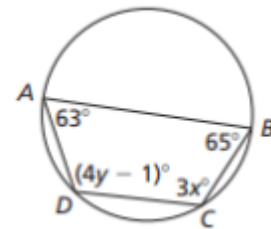
1)  $m\widehat{DF} = \underline{\hspace{2cm}}$



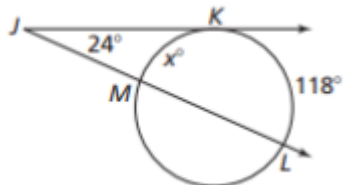
2)  $c = \underline{\hspace{2cm}}$



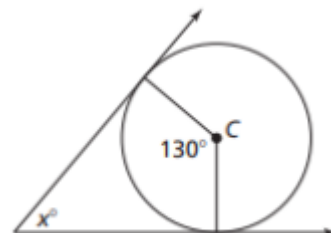
3)  $q = \underline{\hspace{2cm}}$ ,  $r = \underline{\hspace{2cm}}$



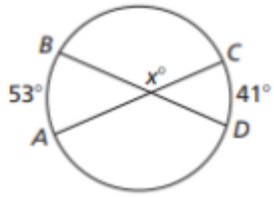
4)  $x = \underline{\hspace{2cm}}$ ,  $y = \underline{\hspace{2cm}}$



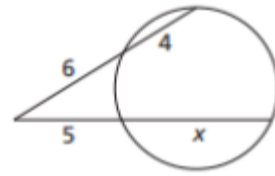
5)  $x = \underline{\hspace{2cm}}$



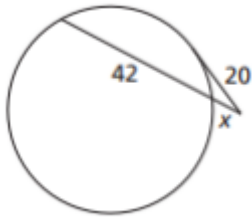
6)  $x = \underline{\hspace{2cm}}$



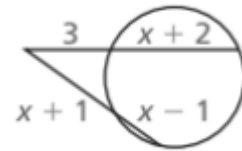
7)  $x =$  \_\_\_\_\_



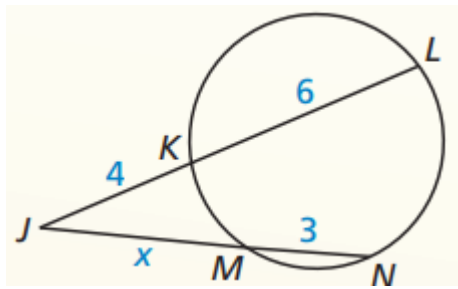
8)  $x =$  \_\_\_\_\_



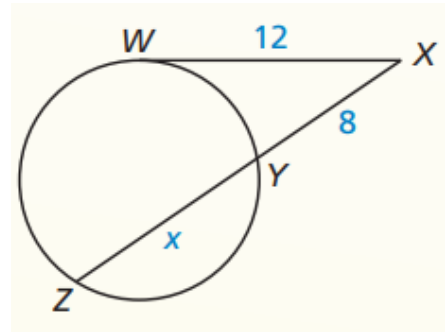
9)  $x =$  \_\_\_\_\_



10)  $x =$  \_\_\_\_\_



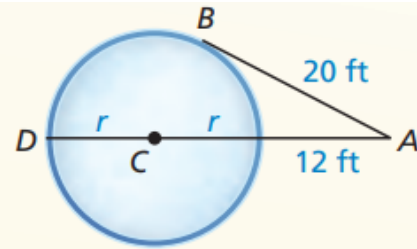
11)  $x =$  \_\_\_\_\_



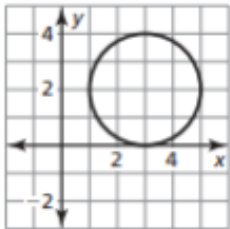
12)  $x =$  \_\_\_\_\_

13)

A local park has a circular ice skating rink. You are standing at point A, about 12 feet from the edge of the rink. The distance from you to a point of tangency on the rink is about 20 feet. Estimate the radius of the rink.



Write the equation of the circle in standard form:



Write the equation of the circle in standard form with center (3, -2) and a point on the circle (23, 19).

15)

14)

**Write the standard equation of the circle with the given center and radius.**

16) center: (0, 0), radius: 9

17) center: (-5, 2), radius: 1.3

Write this equation of a circle in standard form:

$$x^2 + 10x + y^2 - 8y = 11$$

18)

19) The point  $(-7, 1)$  is on a circle with center  $(-7, 6)$ . Write the standard equation of the circle.

20) The equation of a circle is  $x^2 + y^2 - 12x + 8y + 48 = 0$ . Find the center and the radius of the circle. Then graph the circle.

