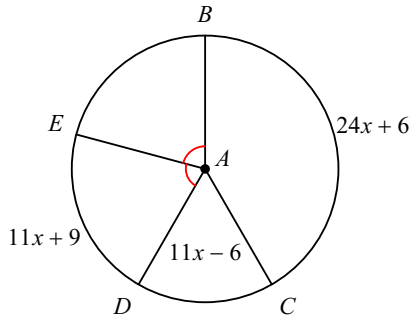


12.REV.1 ~ End of Chapter Review

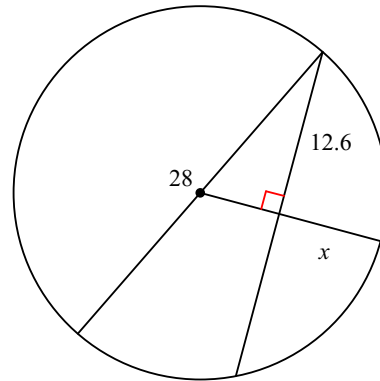
Set up and solve an equation to find the value of  $x$ . Then find the measure of the arc or central angle indicated.

1)  $m\angle DAE$



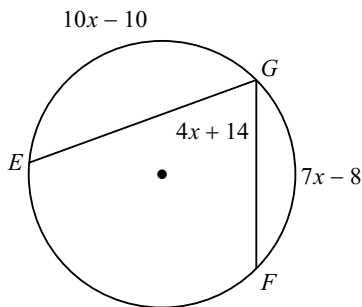
Use the Diameter-Chord Theorem to find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

2)

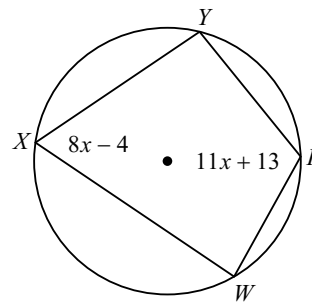


Set up and solve an equation to find the value of  $x$ . Then find the measure of the arc or angle indicated.

3) Find  $m\angle FGE$

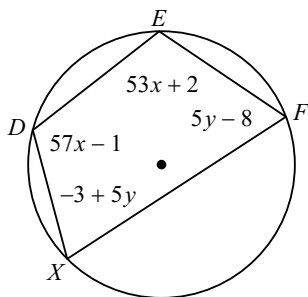


4) Find  $m\widehat{WXY}$



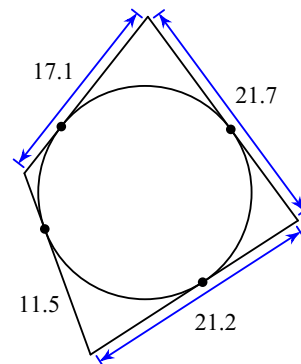
Use the Inscribed Quadrilateral Theorem to set up and solve a system of equations to find the values of  $x$  and  $y$ .

5)



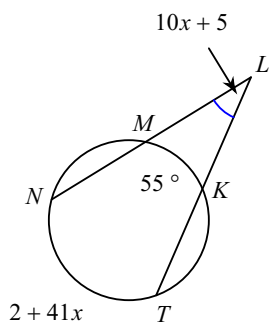
Consider the quadrilateral shown, which is circumscribed about a circle. Use the Tangent Segment Theorem to determine the perimeter of the quadrilateral.

6)

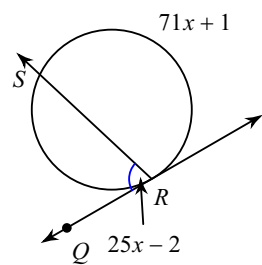


Use the location of the vertex to set up and solve an equation to find the value of  $x$ . Then find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

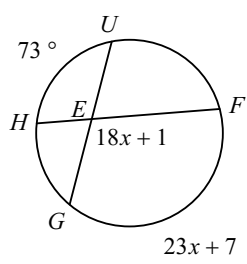
7) Find  $m\angle NLT$



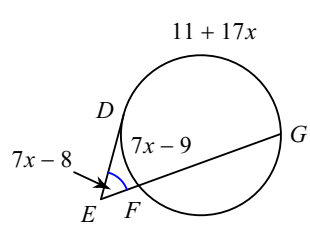
8) Find  $m\angle SRQ$



9) Find  $m\angle FEG$

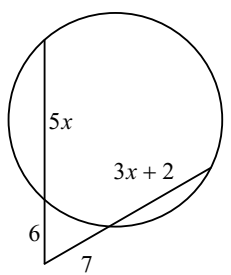


10) Find  $m\widehat{GFD}$

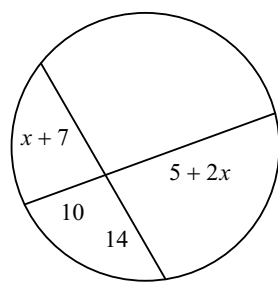


Set up and solve an equation to find the value of  $x$ . Assume that lines which appear tangent are tangent.

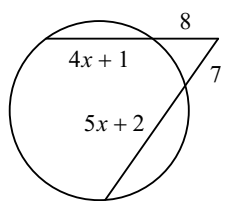
11)



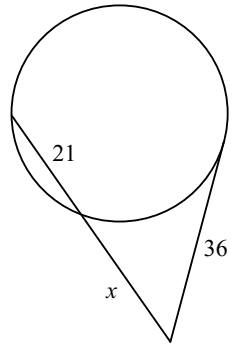
12)



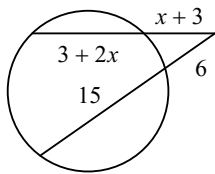
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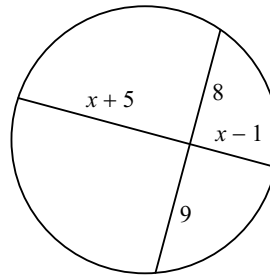
14)



15)

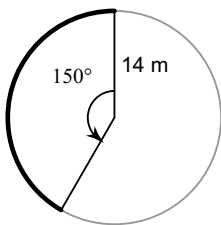


16)

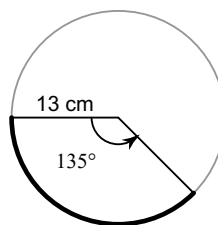


**Find the length of each arc. Express your answer in terms of  $\pi$  and as a decimal rounded to the nearest hundredth.**

17)

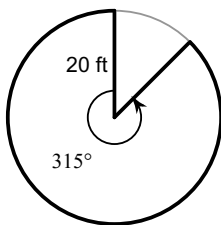


18)

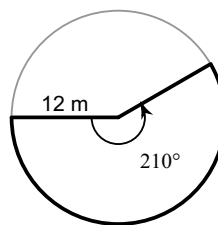


**Find the area of each sector. Express your answer in terms of  $\pi$  and as a decimal rounded to the nearest hundredth.**

19)



20)



21) The measure of an inscribed angle of a circle is  $40^\circ$ .

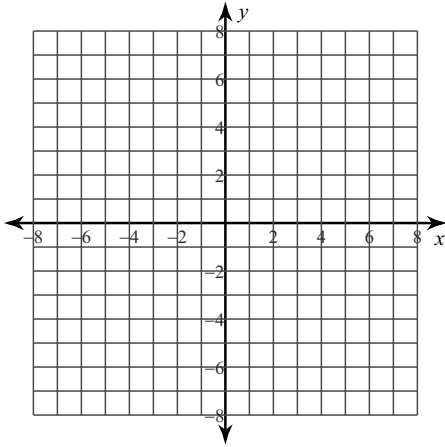
(a) What is the measure of its intercepted arc?

(b) If the radius of the circle is 16 centimeters, what is the length of the arc?

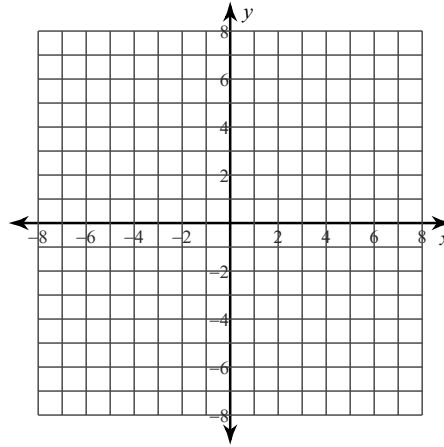
22) Calculate the area of a segment of a circle with a central angle measure of  $90^\circ$  and a radius of 22 feet.

Given the standard form of the equation of a circle, identify the center and radius and then sketch the graph.

23)  $(x - 3)^2 + (y - 4)^2 = 9$



24)  $(x + 1)^2 + (y + 2)^2 = 4$



Write the standard form equation of the circle described.

25) Center:  $(-3, -13)$   
Radius:  $\sqrt{17}$

26) Center:  $(-1, -8)$   
Point on Circle:  $(-9, -10)$

27) Ends of a diameter:  $(-17, 9)$  and  $(-7, 11)$

Complete the square (twice) to transform the equation of a circle in general form into standard form. Then identify its center and its radius.

28)  $x^2 + y^2 - 22x - 14y + 145 = 0$

29)  $x^2 + y^2 + 10x + 14y - 26 = 0$