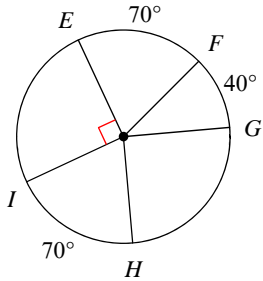


## CIRCLES

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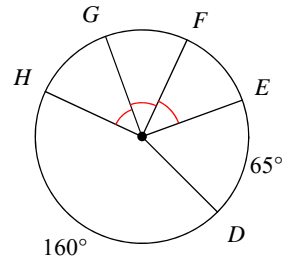
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

1)  $m\widehat{IEG}$



- A)  $200^\circ$       B)  $85^\circ$   
C)  $37^\circ$       D)  $96^\circ$

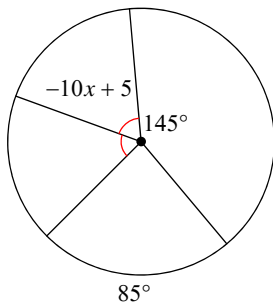
2)  $m\widehat{FE}$



- A)  $55^\circ$       B)  $61^\circ$   
C)  $66^\circ$       D)  $45^\circ$

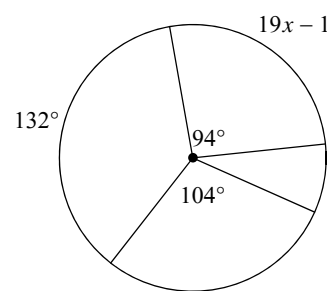
Solve for  $x$ . Assume that lines which appear to be diameters are actual diameters.

3)



- A)  $-4$       B)  $-2$   
C)  $10$       D)  $-6$

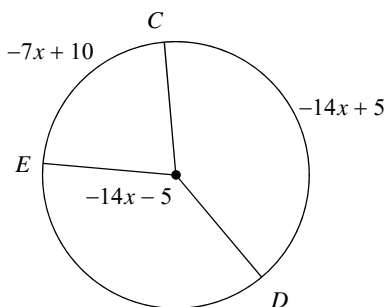
4)



- A)  $-12$       B)  $10$   
C)  $5$       D)  $9$

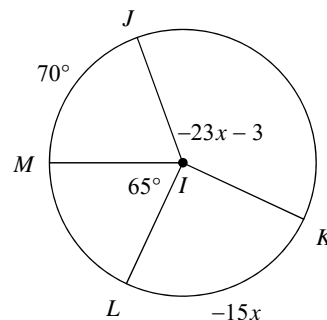
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

5)  $m\widehat{DE}$



- A)  $144^\circ$       B)  $132^\circ$   
C)  $140^\circ$       D)  $135^\circ$

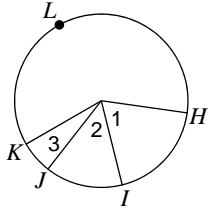
6)  $m\angle KIL$



- A)  $95^\circ$       B)  $90^\circ$   
C)  $89^\circ$       D)  $107^\circ$

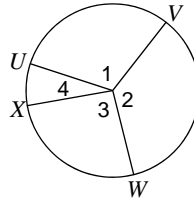
If an angle is given, name the arc it makes. If an arc is given, name its central angle.

7) Major arc for  $\angle 3$



- A)  $\widehat{HI}$       B)  $\widehat{JHK}$   
 C)  $\widehat{HKI}$       D)  $\widehat{IJ}$

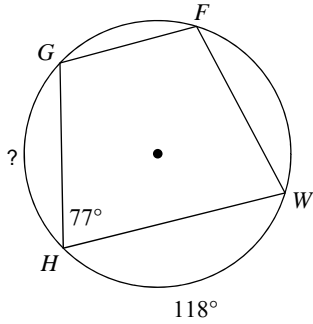
8) Major arc for  $\angle I$



- A)  $\widehat{UX}$       B)  $\widehat{UWV}$   
 C)  $\widehat{VXW}$       D)  $\widehat{UV}$

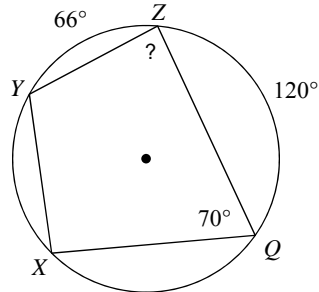
Find the measure of the arc or angle indicated.

9)



- A)  $46^\circ$       B)  $88^\circ$   
 C)  $85^\circ$       D)  $49^\circ$

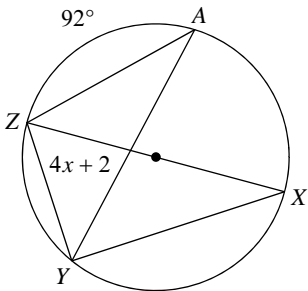
10)



- A)  $107^\circ$       B)  $62^\circ$   
 C)  $59^\circ$       D)  $87^\circ$

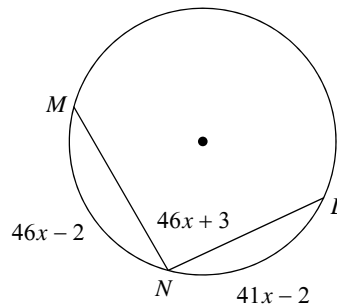
Solve for  $x$ .

11)



- A) 2      B) 6  
 C) 4      D) 11

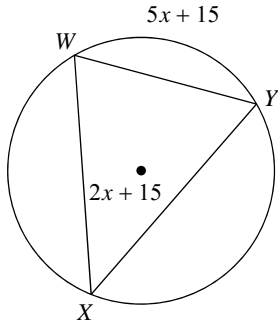
12)



- A) 13      B) 2  
 C) 0      D) 14

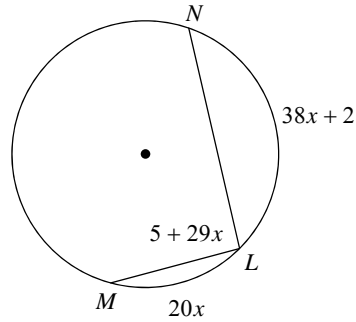
Find the measure of the arc or angle indicated.

13) Find  $m\angle YXW$



- A)  $45^\circ$       B)  $56^\circ$   
 C)  $54^\circ$       D)  $25^\circ$

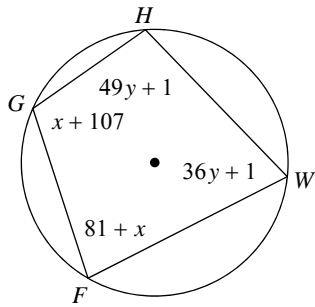
14) Find  $m\widehat{LM}$



- A)  $65^\circ$       B)  $56^\circ$   
 C)  $60^\circ$       D)  $68^\circ$

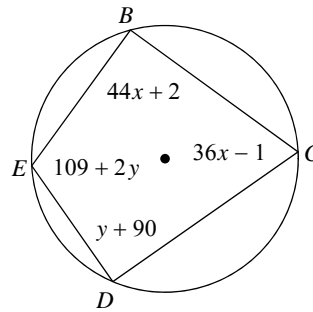
Solve for  $x$  and  $y$ .

15)



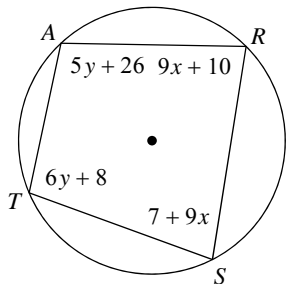
- A)  $x = 6, y = 0$   
 B)  $x = 0, y = 4$   
 C)  $x = 0, y = 2$   
 D)  $x = 11, y = 2$

16)



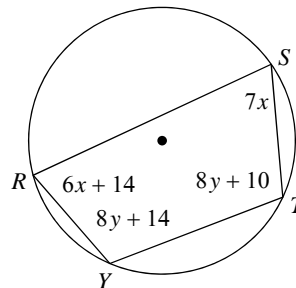
- A)  $x = 7, y = 15$   
 B)  $x = 10, y = 6$   
 C)  $x = 2, y = 0$   
 D)  $x = 12, y = 6$

17)



- A)  $x = 5, y = 12$   
 B)  $x = 3, y = 9$   
 C)  $x = 8, y = 15$   
 D)  $x = 12, y = 7$

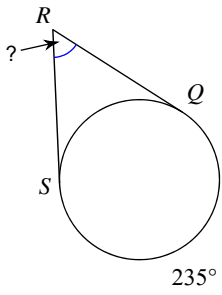
18)



- A)  $x = 8, y = 10$   
 B)  $x = 3, y = 4$   
 C)  $x = 10, y = 12$   
 D)  $x = 3, y = 13$

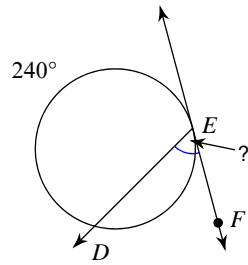
Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

19)



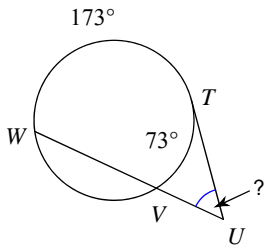
- 235°  
 A) 39°      B) 45°  
 C) 50°      D) 55°

20)



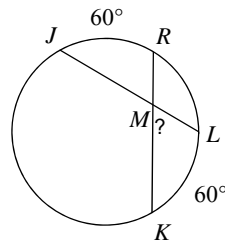
- A) 35°      B) 60°  
 C) 75°      D) 39°

21)



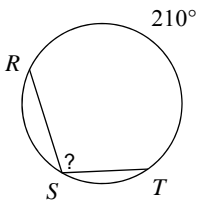
- 73°  
 A) 60°      B) 70°  
 C) 45°      D) 50°

22)



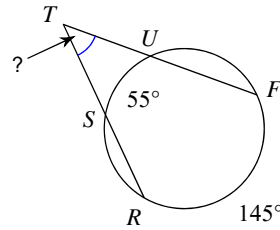
- A) 60°      B) 40°  
 C) 44°      D) 35°

23)



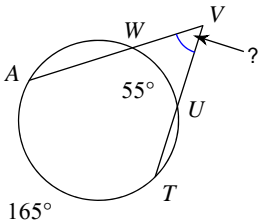
- A) 120°      B) 105°  
 C) 139°      D) 90°

24)



- 145°  
 A) 40°      B) 55°  
 C) 45°      D) 50°

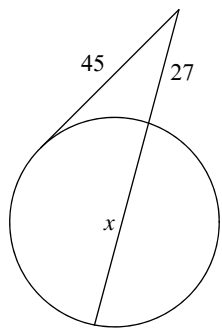
25)



- 165°  
 A) 33°      B) 35°  
 C) 70°      D) 55°

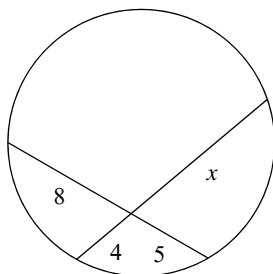
Solve for  $x$ . Assume that lines which appear tangent are tangent.

26)



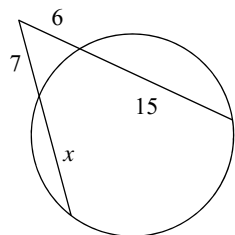
- A) 31      B) 45  
C) 60      D) 48

27)



- A) 10      B) 8  
C) 13      D) 6

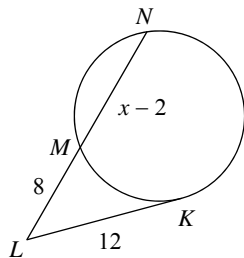
28)



- A) 13      B) 11  
C) 15      D) 12

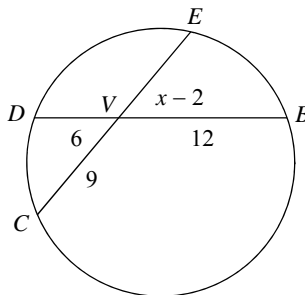
Find the measure of the line segment indicated. Assume that lines which appear tangent are tangent.

29) Find  $LN$



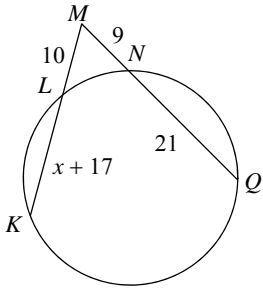
- A) 21      B) 18  
C) 25      D) 24

30) Find  $VE$



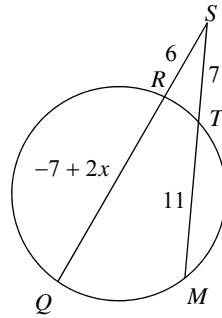
- A) 11      B) 6  
C) 5      D) 8

31) Find  $KM$



- A) 32      B) 27  
C) 36      D) 30

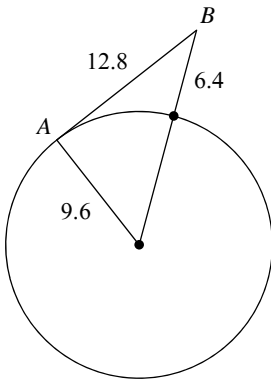
32) Find  $QR$



- A) 13      B) 15  
C) 19      D) 18

**Determine if line AB is tangent to the circle.**

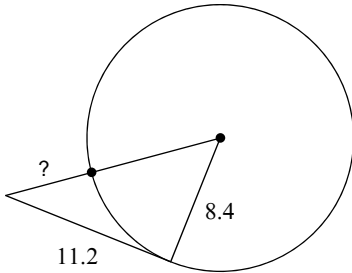
33)



- A) Tangent      B) Not tangent

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

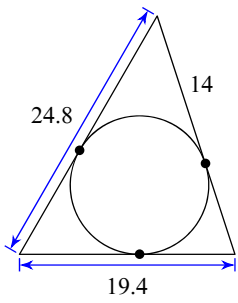
34)



- A) 6.6      B) 5.7  
C) 4.8      D) 5.6

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

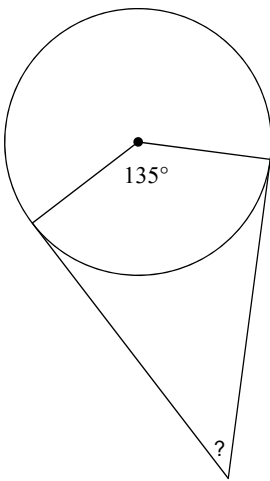
35)



- A) 51.3      B) 48.4  
C) 75.2      D) 66.8

Find the angle measure indicated. Assume that lines which appear to be tangent are tangent.

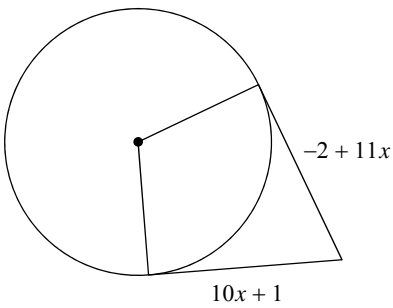
36)



- A)  $45^\circ$       B)  $39^\circ$   
C)  $27^\circ$       D)  $38^\circ$

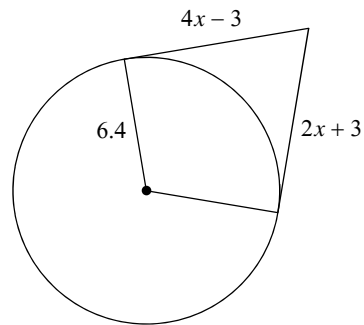
Solve for  $x$ . Assume that lines which appear to be tangent are tangent.

37)



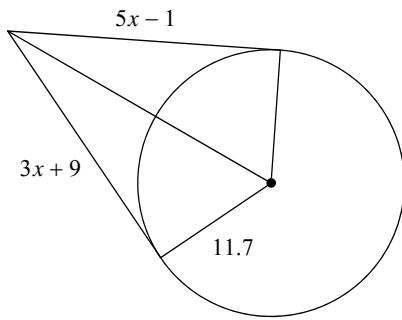
- A) 11      B) 4  
C) 6      D) 3

38)



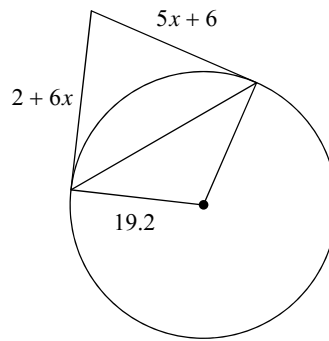
- A) 6      B) 4  
C) 3      D) 0

39)



- A) 9      B) 11  
C) 5      D) 3

40)



- A) 4      B) 0  
C) 7      D) 2

Use the information provided to write the equation of each circle.

41) Center:  $(12, -14)$ 

Radius: 1

- A)  $(x - 14)^2 + (y + 14)^2 = 9$   
B)  $(x + 13)^2 + (y + 13)^2 = 1$   
C)  $(x + 10)^2 + (y + 16)^2 = 1$   
D)  $(x - 12)^2 + (y + 14)^2 = 1$

42) Center:  $(3, -2)$ 

Radius: 7

- A)  $(x - 3)^2 + (y + 2)^2 = 49$   
B)  $(x - 2)^2 + (y + 3)^2 = 2401$   
C)  $(x - 3)^2 + (y - 2)^2 = 49$   
D)  $(x + 2)^2 + (y - 2)^2 = 49$

Identify the center and radius of each.

43)  $(x + 1)^2 + (y - 14)^2 = 19$ 

- A) Center:  $(-1, -14)$   
Radius:  $\sqrt{19}$   
B) Center:  $(-1, 14)$   
Radius: 19  
C) Center:  $(-14, 1)$   
Radius:  $\sqrt{19}$   
D) Center:  $(-1, 14)$   
Radius:  $\sqrt{19}$

44)  $(x + 12)^2 + (y + 4)^2 = 38$ 

- A) Center:  $(4, 12)$   
Radius: 1  
B) Center:  $(-2, 10)$   
Radius:  $\sqrt{38}$   
C) Center:  $(-12, -4)$   
Radius:  $\sqrt{38}$   
D) Center:  $(-12, -4)$   
Radius: 38