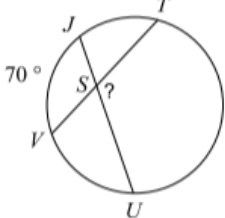
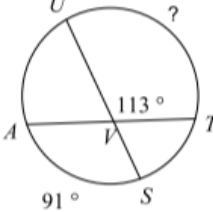


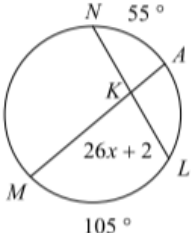
Chord - Chord Angles

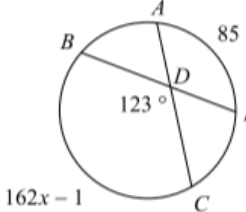
Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

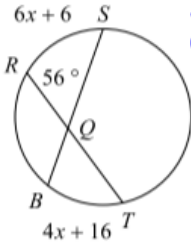
1)   $2(?) = 166 + 70$   
 $2(?) = 236$   
 $? = 118$

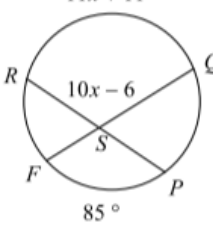
2)   $2(113) = 91 + ?$   
 $226 = 91 + ?$   
 $135 = ?$

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

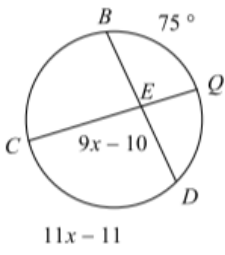
3)   $2(26x + 2) = 105 + 55$   
 $52x + 4 = 160$   
 $52x = 156$   
 $x = 3$

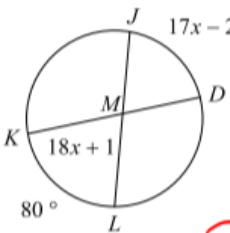
4)   $2(123) = 162x - 1 + 85$   
 $246 = 162x + 84$   
 $162 = 162x$   
 $x = 1$

5)   $2(56) = 6x + 6 + 4x + 16$   
 $112 = 10x + 22$   
 $90 = 10x$   
 $x = 9$

6)   $2(10x - 6) = 11x + 11 + 85$   
 $20x - 12 = 11x + 96$   
 $9x - 12 = 96$   
 $9x = 108$   
 $x = 12$

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

7) Find  $m\angle DEC$   
  $2(9x - 10) = 11x - 11 + 75$   
 $18x - 20 = 11x + 64$   
 $7x - 20 = 64$   
 $7x = 84$   
 $x = 12$   
 $m\angle DEC = 9(12) - 10 = 74^\circ$

8) Find  $m\widehat{JD}$   
  $2(18x + 1) = 17x - 2 + 80$   
 $36x + 2 = 17x + 78$   
 $19x = 76$   
 $x = 4$   
 $m\widehat{JD} = 17(4) - 2$   
 $m\widehat{JD} = 66^\circ$

Secants and Tangent

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

1) *Tangent-Tangent*  

$$2(?) = 245 - 115$$

$$2(?) = 130$$

$$? = 65^\circ$$

2) 
$$2(?) = 179 - 59$$

$$2(?) = 120$$

$$? = 60$$

3) 
$$2(?) = 126 - 50$$

$$2(?) = 76$$

$$? = 38^\circ$$

4) 
$$2(64) = x - (360 - x)$$

$$128 = 2x - 360$$

$$488 = 2x$$

$$x = 244^\circ$$

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

5) 
$$2(16x+3) = 135 - 65$$

$$32x + 6 = 70$$

$$32x = 64$$

$$x = 2$$

6) 
$$2(35x) = 146x - 1 - (74x + 1)$$

$$70x = 72x - 2$$

$$-2x = -2$$

$$x = 1$$

7) 
$$2(69) = 194 - (6x+8)$$

$$138 = 186 - 6x$$

$$-48 = -6x$$

$$x = 8$$

8) 
$$2(9x+5) = 230 - 130$$

$$18x + 10 = 100$$

$$18x = 90$$

$$x = 5$$

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

9)  $m\widehat{HEF} = 77x + 3$   
 Find  $m\widehat{HEF}$   

$$2(17x+3) = 77x+3 - (44x-6)$$

$$34x+6 = 33x+9$$

$$x = 3$$

$$m\widehat{HEF} = 77(3)+3$$

$$m\widehat{HEF} = 231+3$$

$$m\widehat{HEF} = 234^\circ$$

10) Find  $m\widehat{LE}$   

$$2(4x) = 13x - 5 - 40$$

$$8x = 13x - 45$$

$$-5x = -45$$

$$x = 9$$

$$m\widehat{LE} = 13(9) - 5$$

$$m\widehat{LE} = 112^\circ$$