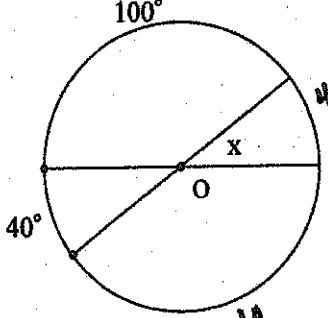
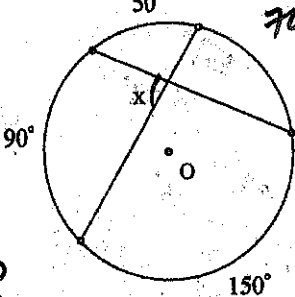


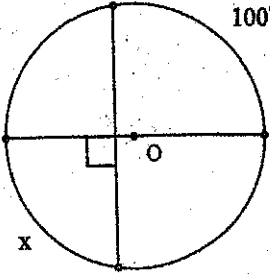
830 10.5 ANGLES RELATED TO A CIRCLE WORKSHEET

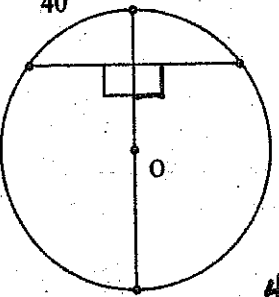
Directions: O is the center of each circle. Find the value of x.

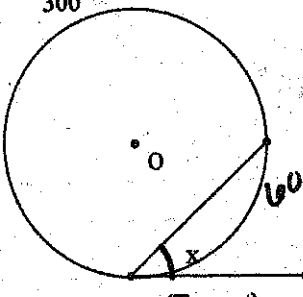
1. 
 $x = 40^\circ$

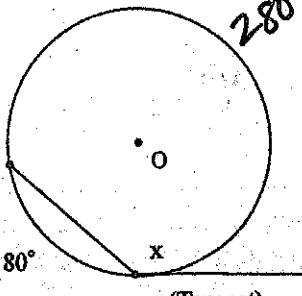
2. 

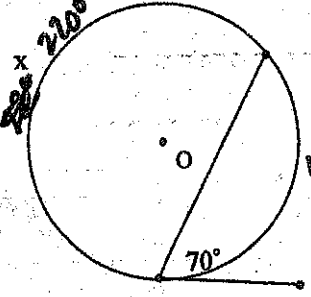
$$\frac{90 + 70}{2}$$
 $x = 80^\circ$

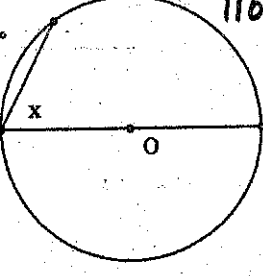
3. 
 $90 = \frac{x + 100}{2}$
 $x = 80^\circ$

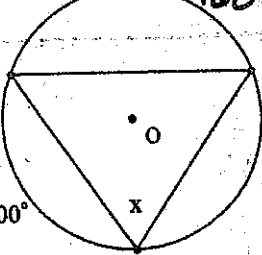
4. 
 $90 = \frac{40 + x}{2}$
 $x = 140$

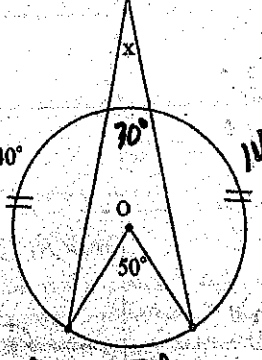
5. 
 $x = 30^\circ$

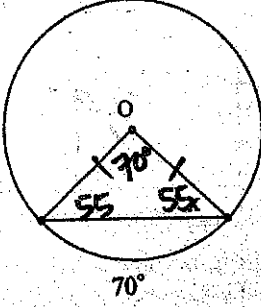
6. 
 $x = 140^\circ$

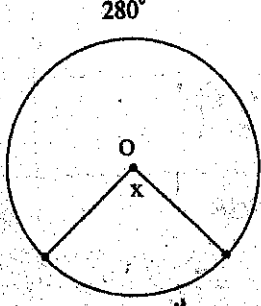
7. 
 $x = 220^\circ$

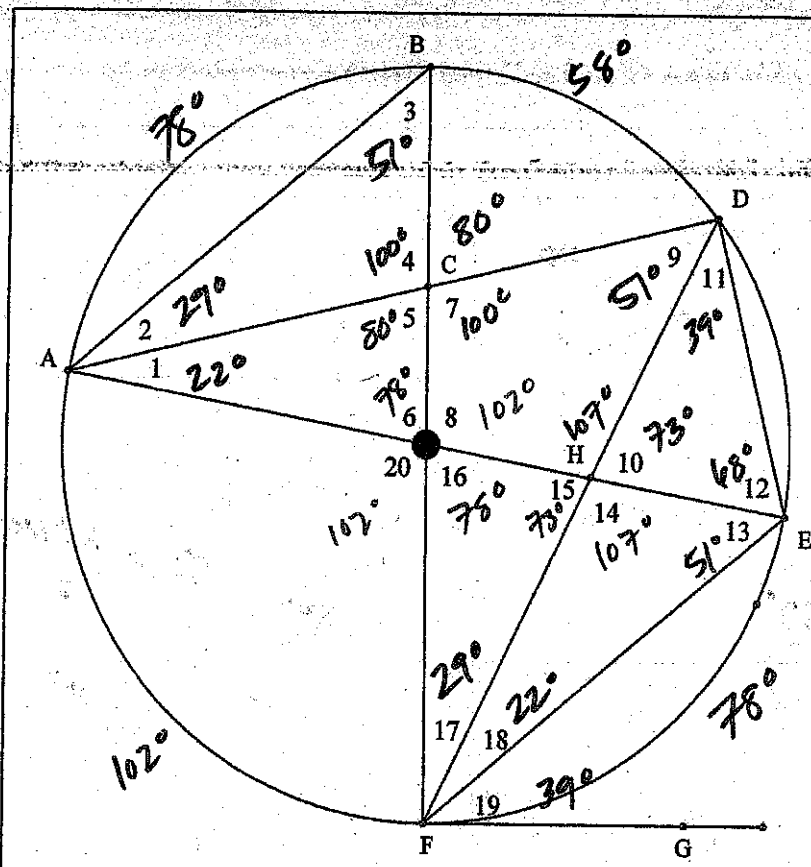
8. 
 $x = 55^\circ$

9. 
 $x = 80^\circ$

10. 
 $\frac{40 - 30}{2} = x_{140}$
 $x = 10^\circ$

11. 
 $x = 55^\circ$

12. 
 $x = 80^\circ$



The dark point in the circle is the center. \overline{FG} is tangent to the circle. Arc $BD = 58^\circ$, angle 1 is 22° and Arc FE is 78° .

Directions: Find each of the following angle measures.

2.	3.	4.	5.	6.
29°	51°	100°	80°	78°
7.	8.	9.	10.	11.
100°	102°	51°	73°	39°
12.	13.	14.	15.	16.
68°	51°	107°	73°	78°
17.	18.	19.	20.	
29°	22°	39°	102°	
$m\angle ADE$	$m\angle BAE$	$m\angle DFG$	$m\angle ADE$	$m\angle BFG$
90°	51°	61°	90°	90°