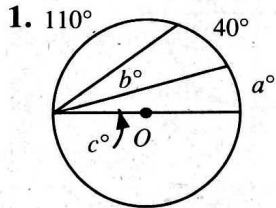


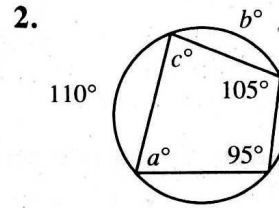
Inscribed Angles

For use after Section 9-5

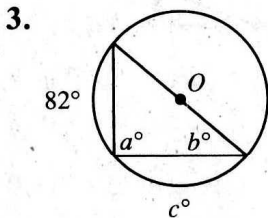
In Exercises 1-6 find the values of a , b , and c . In Exercises 1, 3, and 6, O is the center of the circle.



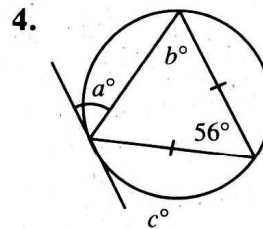
$a =$ _____
 $b =$ _____
 $c =$ _____



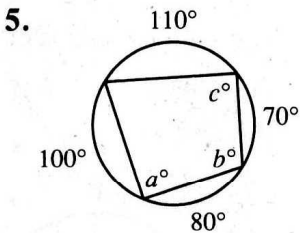
$a =$ _____
 $b =$ _____
 $c =$ _____



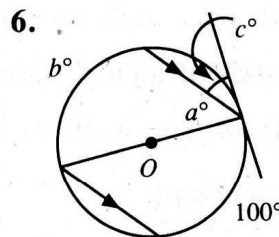
$a =$ _____
 $b =$ _____
 $c =$ _____



$a =$ _____
 $b =$ _____
 $c =$ _____



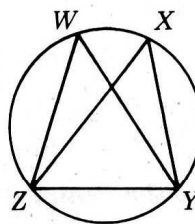
$a =$ _____
 $b =$ _____
 $c =$ _____



$a =$ _____
 $b =$ _____
 $c =$ _____

Supply the missing statements and reasons.

7. Given: $m\widehat{Z\bar{W}} = m\widehat{X\bar{Y}}$
 Prove: $m\angle ZYX = m\angle YZW$



Proof:

Statements	Reasons
1. _____	1. Given
2. $m\widehat{Z\bar{W}} + m\widehat{W\bar{X}} = m\widehat{W\bar{X}} + m\widehat{X\bar{Y}}$	2. _____
3. $m\widehat{Z\bar{W}} + m\widehat{W\bar{X}} = m\widehat{Z\bar{X}}$; $m\widehat{W\bar{X}} + m\widehat{X\bar{Y}} = m\widehat{W\bar{Y}}$	3. _____
4. _____	4. Substitution Property
5. $\frac{1}{2}m\widehat{Z\bar{X}} = \frac{1}{2}m\widehat{W\bar{Y}}$	5. _____
6. $m\angle ZYX = \frac{1}{2}m\widehat{Z\bar{X}}$; $m\angle YZW = \frac{1}{2}m\widehat{W\bar{Y}}$	6. _____
7. $m\angle ZYX = m\angle YZW$	7. _____

Other Angles

In Exercises 1-4 \overline{AB} and \overline{CD} are chords.

- If $m\widehat{AC} = 85$ and $m\widehat{DB} = 73$, then $m\angle 1 =$ _____.
- If $m\widehat{AD} = 136$ and $m\widehat{CB} = 96$, then $m\angle 1 =$ _____.
- If $m\angle 1 = 54$ and $m\widehat{AC} = 78$, then $m\widehat{DB} =$ _____.
- If $m\angle 1 = 48$ and $m\widehat{DB} = 42$, then $m\widehat{AC} =$ _____.

In Exercises 5-7 \overline{EF} and \overline{EG} are tangents.

- If $m\widehat{FHG} = 280$, then $m\angle E =$ _____.
- If $m\widehat{FG} = 96$, then $m\angle E =$ _____.
- If $m\angle E = 90$, then $m\widehat{FHG} =$ _____.

In Exercises 8-10 \overline{IJ} is a tangent.

- If $m\widehat{JK} = 120$ and $m\widehat{IL} = 40$, then $m\angle I =$ _____.
- If $m\angle I = 45$ and $m\widehat{IL} = 55$, then $m\widehat{JK} =$ _____.
- If $m\angle I = 50$ and $m\widehat{JK} = 110$, then $m\widehat{IL} =$ _____.

In Exercises 11-15 \overline{RP} and \overline{RT} are secants.

- If $m\widehat{PT} = 100$ and $m\widehat{QS} = 20$, then $m\angle R =$ _____.
- If $m\widehat{PT} = 130$ and $m\widehat{QS} = 40$, then $m\angle R =$ _____.
- If $m\angle R = 25$ and $m\widehat{QS} = 25$, then $m\widehat{PT} =$ _____.
- If $m\angle R = 40$ and $m\widehat{PT} = 130$, then $m\widehat{QS} =$ _____.
- If $m\widehat{ST} = 90$, $m\widehat{QS} = 60$, and $m\widehat{QP} = 80$, then $m\angle R =$ _____.

In Exercises 16-19 \overrightarrow{DF} is tangent to the circle at point E.

- If $m\widehat{AG} = 100$ and $m\widehat{BH} = 20$, then $m\angle C =$ _____.
- If $m\angle C = 25$ and $m\widehat{BH} = 25$, then $m\widehat{AG} =$ _____.
- If $m\widehat{EH} = 95$ and $m\widehat{GE} = 25$, then $m\angle D =$ _____.
- If $m\angle D = 40$ and $m\widehat{EH} = 138$, then $m\widehat{GE} =$ _____.

1)		2)		3)	
4)		5)		6)	
7)		8)		9)	
10)		11)		12)	
13)		14)		15)	
16)		17)		18)	
19)					