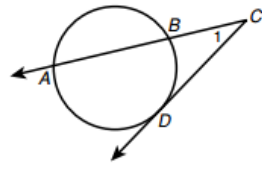
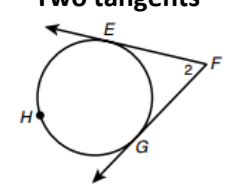
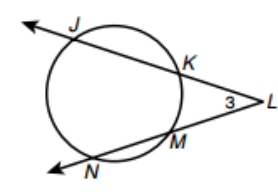


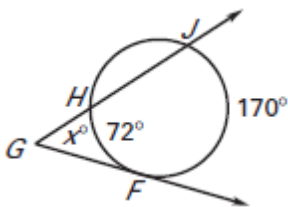


- I can find the measures of angles "OUT" of a circle

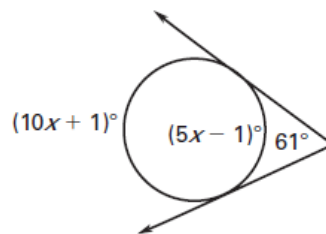
<p>If two segments intersect in the exterior of a circle, then the measure of the angle formed is _____ of the measures of its intercepted arcs.</p>	<p>A tangent and a secant</p>  <p>$m\angle 1 = \underline{\hspace{2cm}}$</p>
	<p>Two tangents</p>  <p>$m\angle 2 = \underline{\hspace{2cm}}$</p>
	<p>Two secants</p>  <p>$m\angle 3 = \underline{\hspace{2cm}}$</p>

Example 1 : Please find the value of x in the following diagrams.

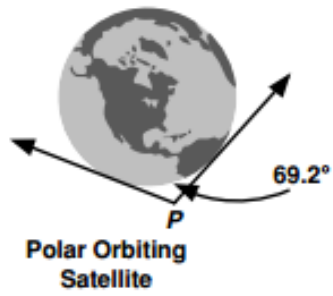
a)



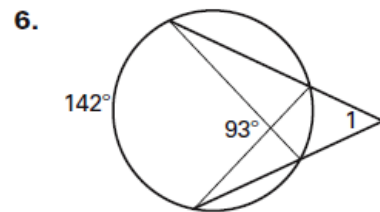
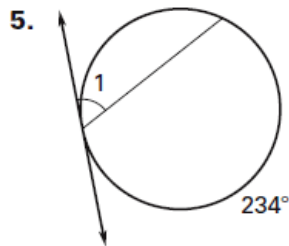
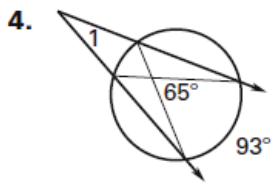
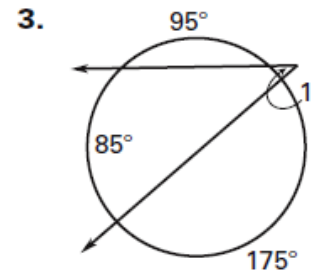
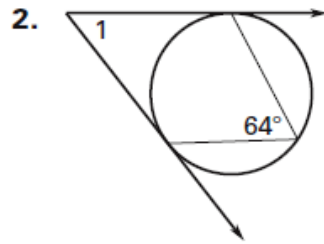
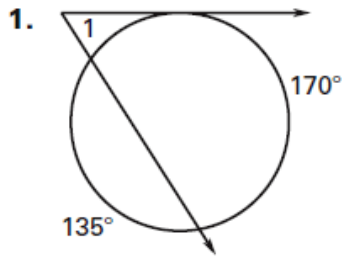
b)



- c) A polar orbiting satellite is about 850 kilometers above Earth. About 69.2 arc degrees of the planet are visible to a camera in the satellite. What is $m\angle P$?



Find the measure of $\angle 1$.



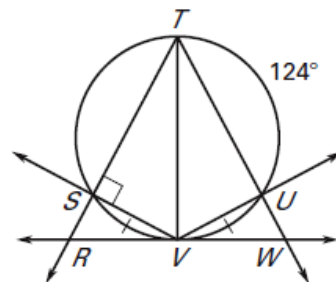
Use the information given in the diagram to find each measure below.

7. $m\widehat{TV}$

8. $m\widehat{SV}$

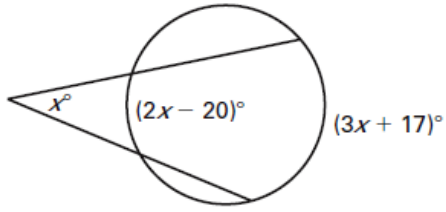
9. $m\angle STU$

10. $m\angle VWU$

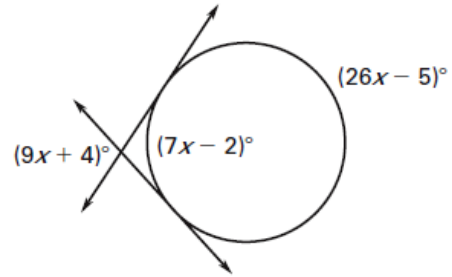


Find the value of x .

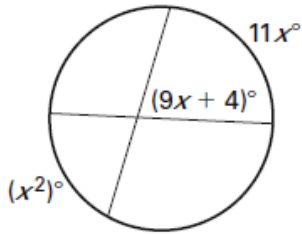
11.



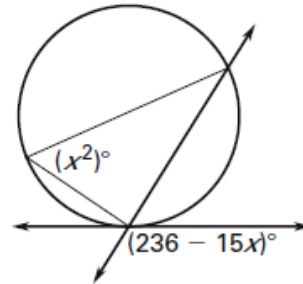
12.



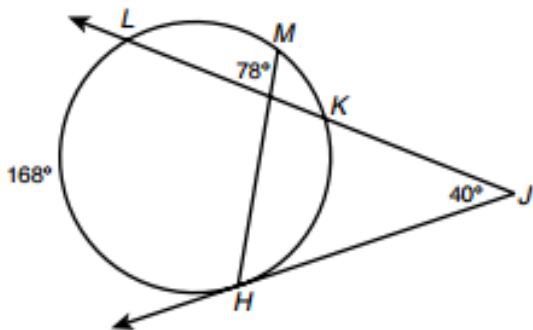
13.



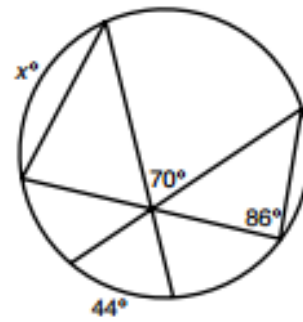
14.



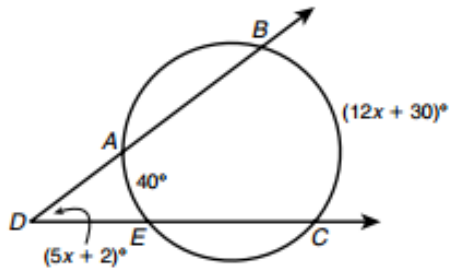
15. What is $m\widehat{LM}$?



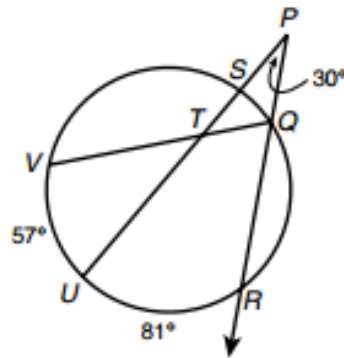
16. An artist painted the design shown below.
What is the value of x ?



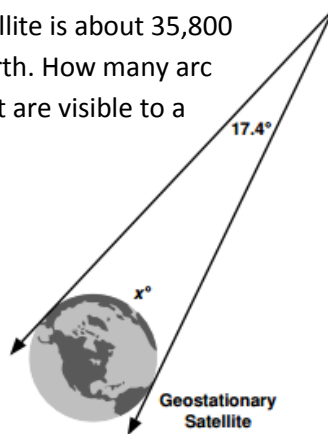
17. What is $m\angle ADE$?



18. Find $m\angle VTU$.



19. A geostationary satellite is about 35,800 kilometers above Earth. How many arc degrees of the planet are visible to a camera in satellite?



Answer Key

- | | |
|-----------------|-------------------|
| 1. 57.5° | 11. 37 |
| 2. 52° | 12. 11 |
| 3. 40° | 13. 8 |
| 4. 28° | 14. 7 or 8 |
| 5. 63° | 15. 68° |
| 6. 49° | 16. 76 |
| 7. 180° | 17. 37° |
| 8. 56° | 18. 39° |
| 9. 56° | 19. 162.6° |
| 10. 62° | |