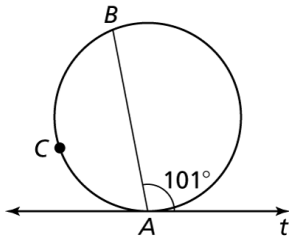


# 10.5

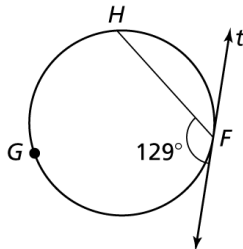
## Practice A

In Exercises 1–3, line  $t$  is tangent to the circle. Find the indicated measure.

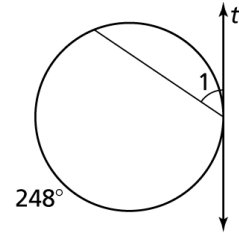
1.  $m\widehat{AB}$



2.  $m\widehat{FH}$

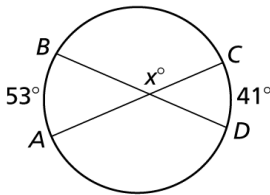


3.  $m\angle 1$

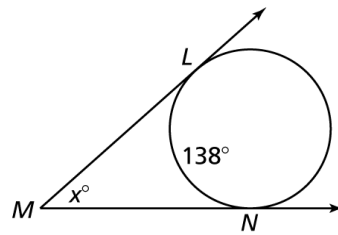


In Exercises 4–7, find the value of  $x$ .

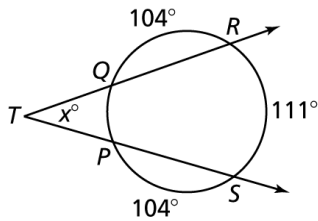
4.



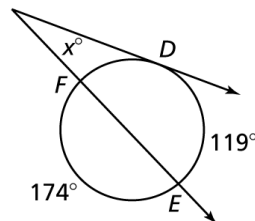
5.



6.



7.

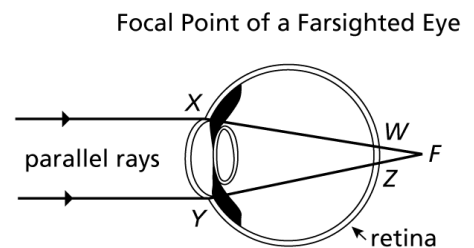


8. Describe and correct the error in finding the angle measure.

$$m\angle X = \frac{1}{2}(128^\circ + 100^\circ)$$

$$= 114^\circ$$

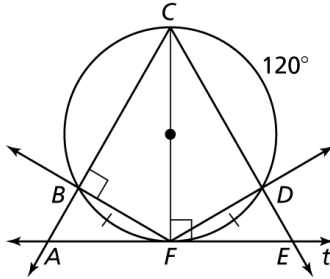
9. Parallel light rays enter the eye and are bent by the lens to converge at a single point on the retina called the *focal point*. When a person is farsighted, the rays converge behind the retina, as shown in the diagram. When  $m\widehat{XY} = 52^\circ$  and  $m\widehat{WZ} = 10^\circ$ , find the measure of angle  $F$ .



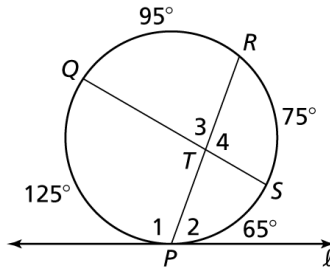
# 10.5 Practice B

In Exercises 1–6, use the diagram to find the measure of the angle.

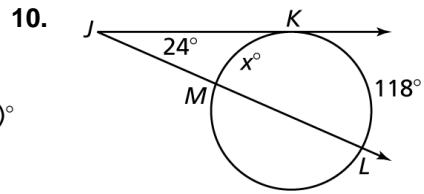
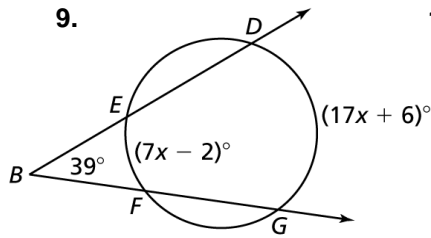
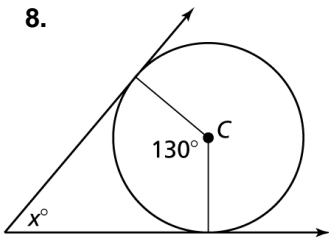
1.  $m\angle CAF$
2.  $m\angle AFB$
3.  $m\angle CEF$
4.  $m\angle CFB$
5.  $m\angle DCF$
6.  $m\angle BCD$



7. In the diagram,  $\ell$  is tangent to the circle at  $P$ . Which relationship is *not* true? Explain.
  - A.  $m\angle 1 = 110^\circ$
  - B.  $m\angle 2 = 70^\circ$
  - C.  $m\angle 3 = 80^\circ$
  - D.  $m\angle 4 = 90^\circ$

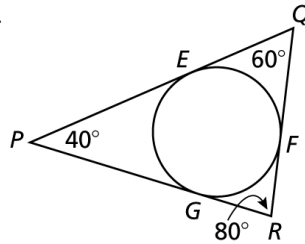


In Exercises 8–10, find the value of  $x$ .



11. In the diagram, the circle is inscribed in  $\triangle PQR$ .

- a. Find  $m\angle EF$ .
- b. Find  $m\angle FG$ .
- c. Find  $m\angle GE$ .



12. A plane at point  $U$  is flying at an altitude of 7 miles above Earth. What is the measure of arc  $TV$  that represents the part of Earth you can see from the airplane? The radius of Earth is about 4000 miles.

