10.5 Practice A

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

1. \( m\angle AB \)

![Diagram of circle with line \( t \) tangent and \( \angle 101^\circ \) at point A]

2. \( m\angle FH \)

![Diagram of circle with line \( t \) tangent and \( \angle 129^\circ \) at point F]

3. \( m\angle 1 \)

![Diagram of circle with line \( t \) tangent and \( \angle 248^\circ \) at point 1]

In Exercises 4–7, find the value of \( x \).

4. 

![Diagram of circle with \( \angle 53^\circ \), \( \angle 41^\circ \), and \( \angle x^\circ \)]

5. 

![Diagram of circle with line \( \angle 138^\circ \) and \( \angle x^\circ \)]

6. 

![Diagram of circle with \( \angle 104^\circ \), \( \angle 111^\circ \), and \( \angle x^\circ \)]

7. 

![Diagram of circle with \( \angle 174^\circ \), \( \angle 119^\circ \), and \( \angle x^\circ \)]

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 \( m\angle XY = 52^\circ \) and \( m\angle WZ = 10^\circ \), 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, \( l \) 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 \( x \).

8. 
9. 
10. 

11. In the diagram, the circle is inscribed in \( \triangle PQR \).
   a. Find \( m \angle EF \).
   b. Find \( m \angle PG \).
   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.