I. Measures of Chords

1. In the accompanying diagram, AB and CD are chords of the circle and intersect at E. If \( AE = 10 \), \( EB = 9 \), and \( CE = 6 \), find \( DE \).

![Diagram of circle with chords AB and CD intersecting at E, with lengths AE = 10, EB = 9, and CE = 6.]

2. In the accompanying diagram of circle \( O \), chords AB and CD intersect at E, \( AE = x \), \( EB = x+1 \), \( CE = x - 1 \), and \( ED = 2x \). Find \( AE \).

![Diagram of circle with chords AB and CD intersecting at E, with variable expressions.]
3. In the accompanying diagram, chords AB and CD of circle O intersect at E. If AB = x, EB = x - 6, and CE=ED=4, find AE.

4. In the accompanying diagram of a circle, chords AC and BD intersect at E, DE=6, EB=4, and AE=3. What is EC?

5. In the accompanying diagram of circle O, chords AB and CD intersect at E. If AE x EB = 18 and ED = 6, what is CE?
6. In the accompanying diagram of circle O, chords AB and CF intersect at E. If EB = 16, AE = 5, and CE = 10, find EF.

7. In the diagram below, chords AB and CD intersect at point E in circle O. If AE = 8, EB = 9, CE = x+2, and ED = x-4, find x.