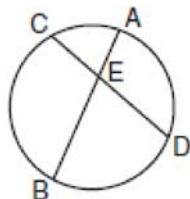
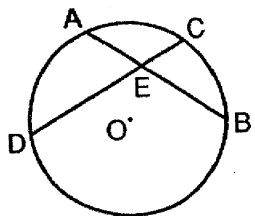


G.G.53: Segments Intercepted by Circle 5: Investigate, justify, and apply theorems regarding segments intercepted by a circle: along two intersecting chords of a given circle

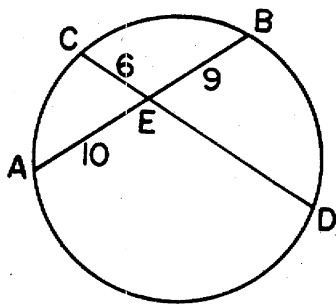
- 1 In the accompanying diagram of a circle, chords \overline{AB} and \overline{CD} intersect at E , $\overline{CE} = 5$, $\overline{CD} = 13$, and $\overline{AE} = 4$. Find the length of \overline{BE} .



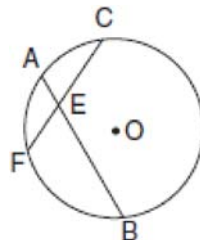
- 2 In the accompanying diagram of circle O , chords \overline{AB} and \overline{CD} intersect at E . If $\overline{AE} = 4$, $\overline{EB} = 6$, and $\overline{CE} = 3$, find \overline{ED} .



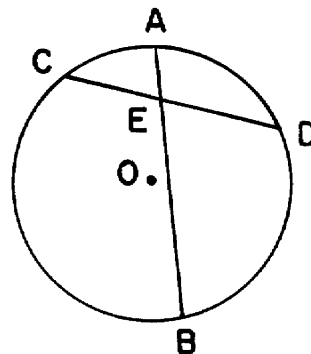
- 3 In the accompanying diagram, \overline{AB} and \overline{CD} are chords of the circle and intersect at E . If $\overline{AE} = 10$, $\overline{EB} = 9$, and $\overline{CE} = 6$, find \overline{DE} .



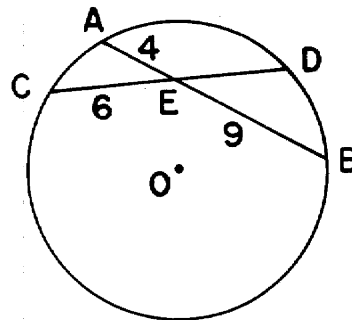
- 4 In the accompanying diagram of circle O , chords \overline{AB} and \overline{CF} intersect at E . If $\overline{EB} = 16$, $\overline{AE} = 5$, and $\overline{CE} = 10$, find \overline{EF} .



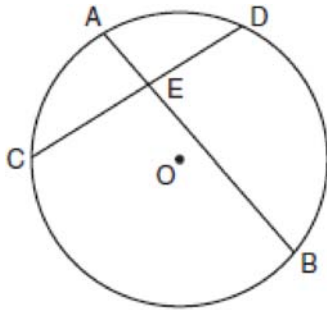
- 5 In the accompanying diagram of circle O , chords \overline{AB} and \overline{CD} intersect at E . If $\overline{AE} = 2$, $\overline{CD} = 9$, and $\overline{CE} = 4$, find \overline{BE} .



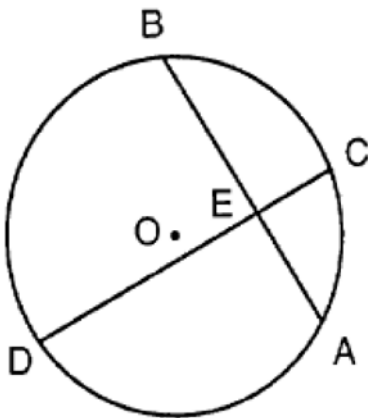
- 6 In the accompanying diagram of circle O , chords \overline{AB} and \overline{CD} intersect at E . If $\overline{AE} = 4$, $\overline{EB} = 9$, and $\overline{CE} = 6$, what is the length of \overline{ED} ?



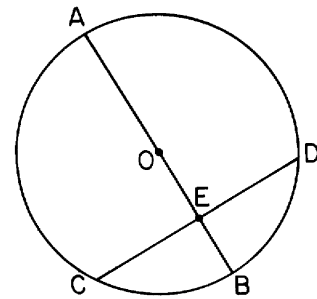
- 7 In the accompanying diagram of circle O , chords \overline{AB} and \overline{CD} intersect at E , $\overline{AE} = 5$, $\overline{CD} = 18$, and $\overline{ED} = 8$. Find the length of \overline{EB} .



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

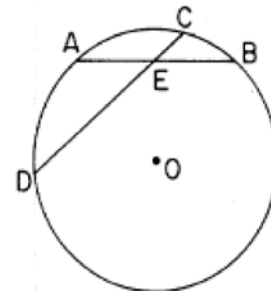


- 9 In circle O , diameter \overline{AB} is perpendicular to chord \overline{CD} at E . If $\overline{AE} = 16$ and $\overline{EB} = 4$, what is \overline{CD} ?



- 1) 32
- 2) 16
- 3) 10
- 4) 8

- 10 In the accompanying diagram of circle O , chord \overline{CD} bisects chord \overline{AB} at E , $\overline{CE} = 2$, and $\overline{AB} = 8$. Find \overline{ED} .



G.G.53: Segments Intercepted by Circle 5: Investigate, justify, and apply theorems regarding segments intersected by a circle: along two intersecting chords of a given circle
Answer Section

1 ANS:
10

REF: 010206siii

2 ANS:
8

REF: 089506siii

3 ANS:
15

REF: 018408siii

4 ANS:
8

REF: 010103siii

5 ANS:
10

REF: 068705siii

6 ANS:
6

REF: 088702siii

7 ANS:
16

REF: 080212siii

8 ANS:
3

REF: 089738siii

9 ANS: 2 REF: 089020siii

10 ANS:
8

REF: 018707siii