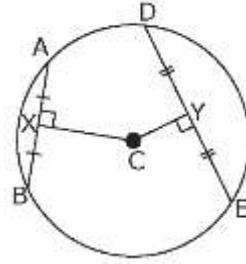
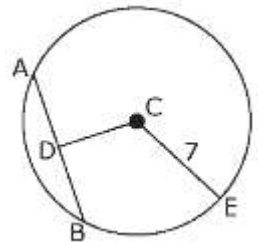


Extra Chord Practice

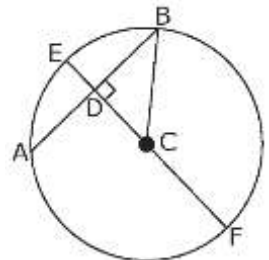
1. Describe the conclusion(s) that can be drawn from the diagram.



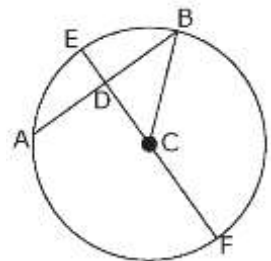
2. In the diagram, D is the midpoint of AB. AB is 8 units in length. Find the length of CD to the nearest tenth. Justify your answer.



3. In the diagram, $AB = 8$ units and $CD = 5$ units. Find the lengths of CB, ED, and EF to the nearest tenth.



4. In the diagram, diameter EF bisects chord AB at D. If $EF = 24$ units and $AB = 16$ units, find the lengths of CF, CB, BD, CD, and DE to the nearest tenth.



Extra Practice Answers

1. Example: Segment CX is a perpendicular bisector of AB. Segment CY is a perpendicular bisector of DE. Therefore, C is the centre of the circle.
2. CD = 5.7 units. Example: Segment CD bisects AB. If a bisector of a chord in a circle passes through the centre, then the bisector is perpendicular to the chord. $\angle CDA = \angle CDB = 90^\circ$. AD = BD = 4 units. CE is a radius of the circle. Use the Pythagorean relationship.
3. CB = 6.4 units, ED = 1.4 units, EF = 12.8 units
4. CF = 12 units, CB = 12 units, BD = 8 units,