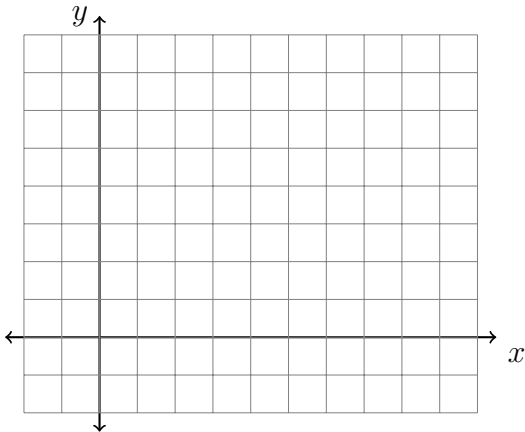


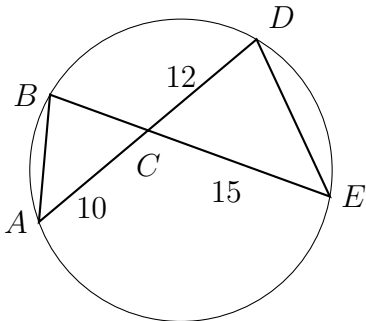
11.5 Circle equations and chords

1. What are the coordinates of the center and the length of the radius of the circle whose equation is $(x + 3)^2 + (y - 7)^2 = 4$?
2. What is the equation of a circle with diameter \overline{AB} with $A(2, -1)$, $B(8, 7)$?

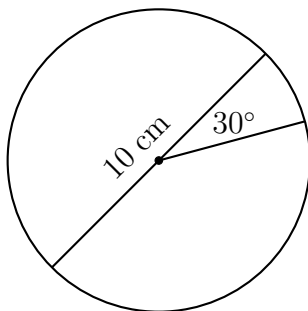


3. The equation of a circle is $x^2 + y^2 - 6x + 2y = 6$. What are the coordinates of the center and the length of the radius of the circle?

4. Circle O has chords \overline{AD} and \overline{BE} intersecting at C , as shown. Find BC .



5. An isosceles right triangle whose legs measure 6 is continuously rotated about one of its legs to form a three-dimensional object. The three-dimensional object is a
- (a) cylinder with a diameter of 6
 - (b) cylinder with a diameter of 12
 - (c) cone with a diameter of 6
 - (d) cone with a diameter of 12
6. The coordinates of the endpoints of directed line segment ABC are $A(-8, 7)$ and $C(7, -13)$. If $AB : BC = 3 : 2$, what are the coordinates of B ?
7. A circle with a diameter of 10 cm and a central angle of 30° is drawn below.



What is the area, to the *nearest tenth of a square centimeter*, of the sector formed by the 30° angle?

8. A child's tent can be modeled as a pyramid with a square base whose sides measure 60 inches and whose height measures 84 inches. What is the volume of the tent, to the *nearest cubic foot*?