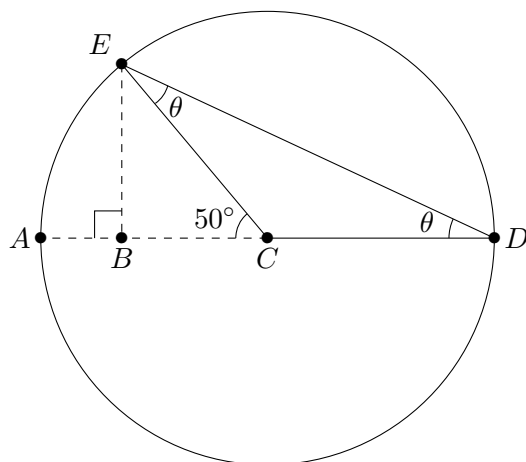


6. [14 points] Shown below is a circle of **diameter** 10 cm with center C .



Note that the line segment EB is perpendicular to the diameter AD .
 Fill in the blanks in the following sentences. Give each answer in **exact** form using only numbers and/or trigonometric functions.

- a. [2 points] $\theta =$ _____ $^\circ$ (degrees).

- b. [3 points] The length of the arc EA is _____ cm.

- c. [3 points] The length of the line segment BC is _____ cm.

- d. [2 points] The length of the line segment AB is _____ cm.

- e. [4 points] The length of the line segment DE is _____ cm.