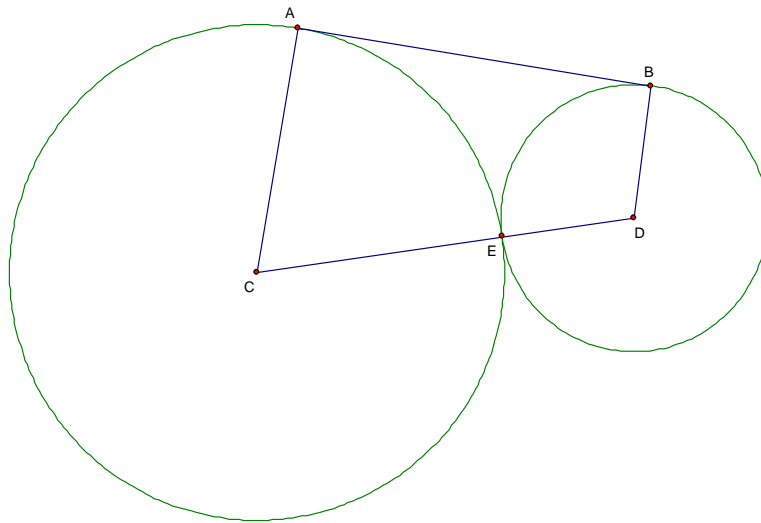


**\*This question is worth a total of 3 bonus points. You must show all work.**



**In the diagram above, segment AB is a common tangent,  $AC = 12$  cm and  $BD = 8$  cm. Find the length of segment AB to the nearest hundredth of a cm.**

**Answer:** \_\_\_\_\_