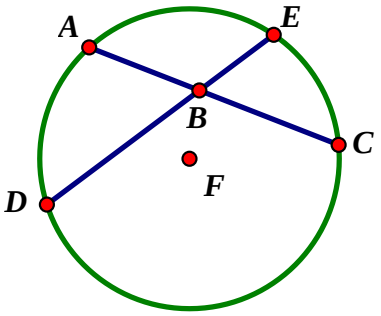
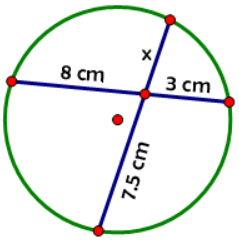
**1. Prove that AB • BC = DB • BE.**




**HINT: Create $\overline{AD}$ and $\overline{EC}$ to form ΔDAB and ΔCEB.**

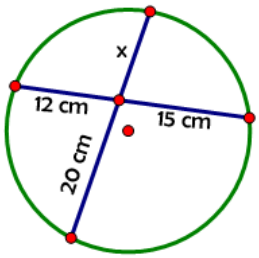
**2. Determine the value of x.**

a)



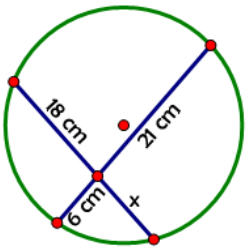

x = _____

b)



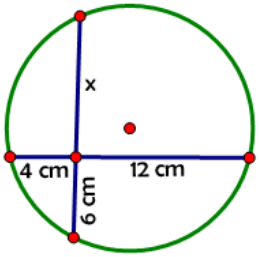

x = _____

c)



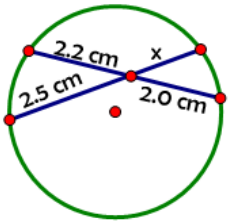

x = _____

d)



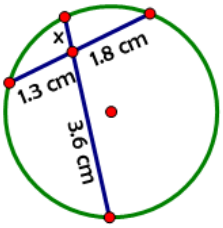

x = _____

e)



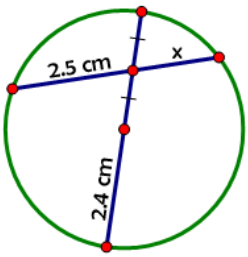

x = _____

f)



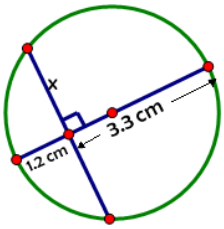

x = _____

g)



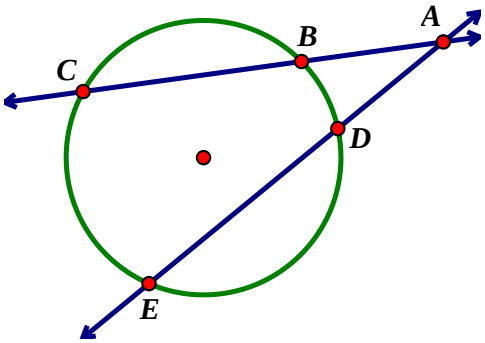

x = _____

h)




x = _____ (2 dec.)

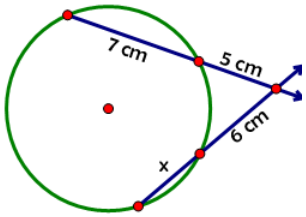
**3. Prove that AB • AC = AD • AE.**




**HINT: Create $\overline{DC}$ and $\overline{BE}$ to form ΔADC and ΔABE.**

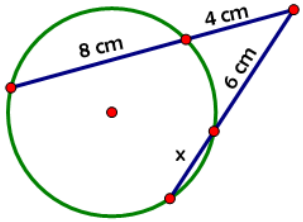
4. **Determine the value of x.** (Lines that appear to be tangent are tangent.)

a)



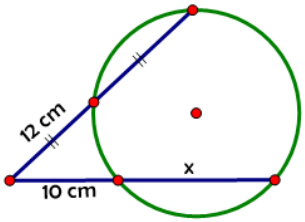

x = _____

b)



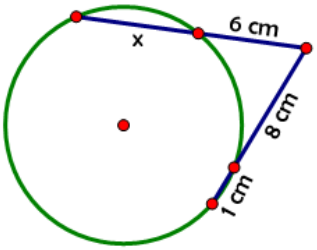

x = _____

c)



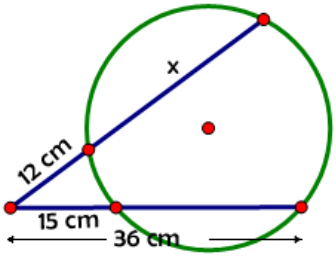

x = _____

d)



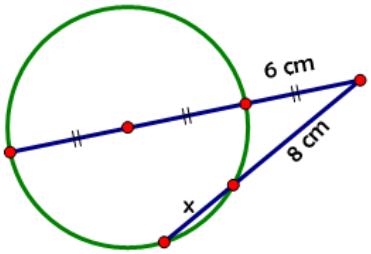

x = _____

e)



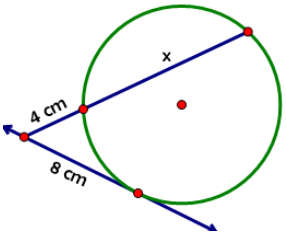

x = _____

f)



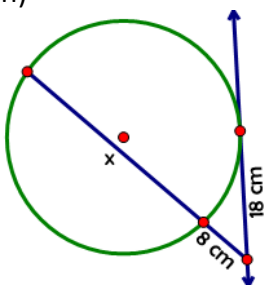

x = _____

g)



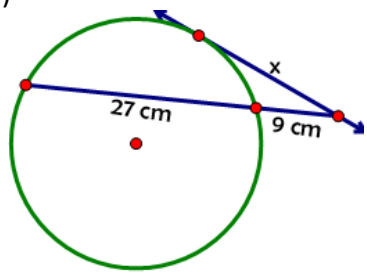

x = _____

h)



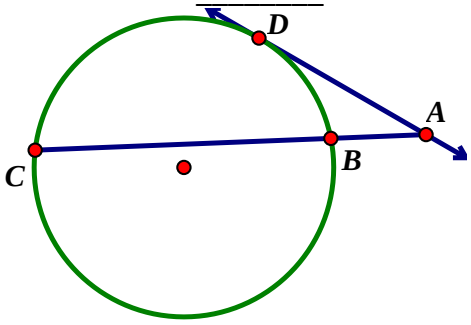

x = _____

i)




x = _____

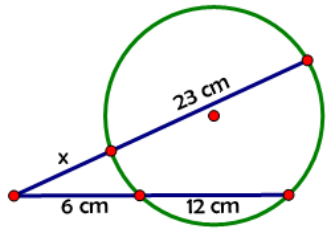
**5. Prove that AD • AD = AB • AC.**




**HINT: Create $\overline{DB}$ and $\overline{DC}$ to form ΔABD and ΔADC.** **HINT: m∠ADB = ½ $mDB$ (tangent/secant ∠)**

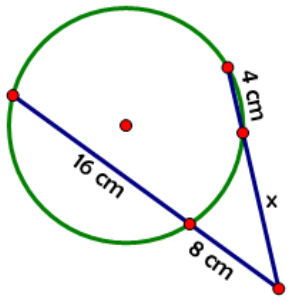
**6. Determine the value of x.** (Lines that appear to be tangent are tangent.)

a)



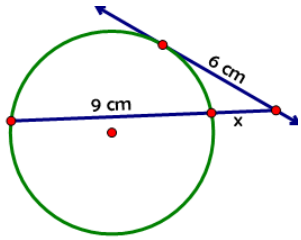

x = _____

b)



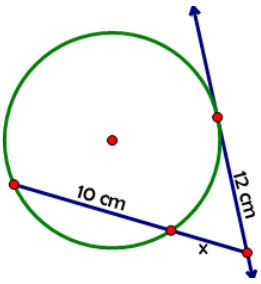

x = _____

c)



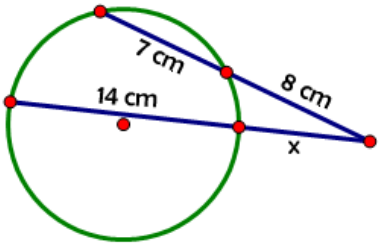

x = _____

d)



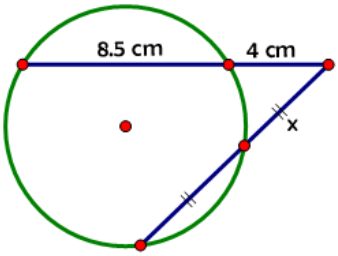

x = _____

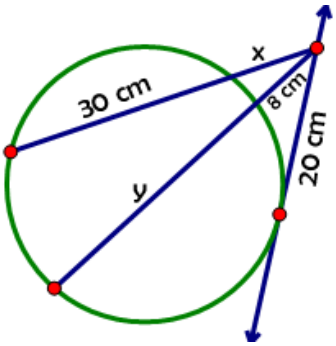
e)




x = _____

f)




x = _____

7. Solve for x and y.