

6.6 Notes

1)

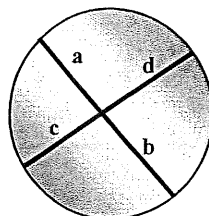
Analytic Geometry Chapter 6.6

Secant and Tangent Segment Measures



2)

Type 1: Two chords intersect INSIDE the circle

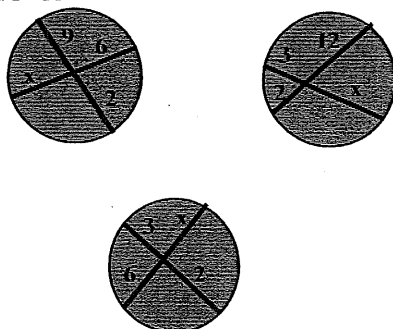


$$ab = cd$$

$$\text{part} \cdot \text{part} = \text{part} \cdot \text{part}$$

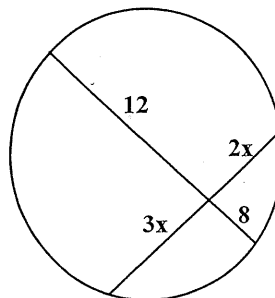
3)

Example 1:



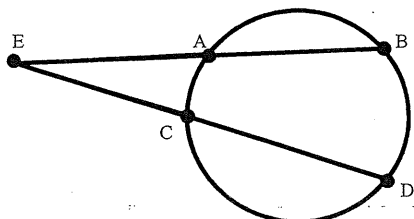
4)

Example 2: Find x



5)

Type 2: Two secants intersect OUTSIDE the circle

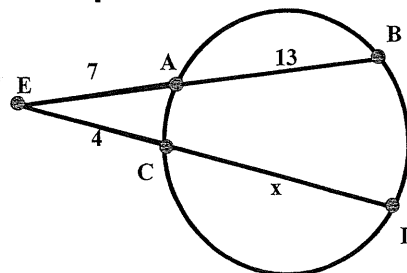


$$EA \cdot EB = EC \cdot ED$$

outside • whole = outside • whole

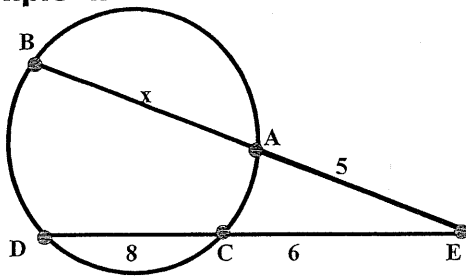
6)

Example 3:

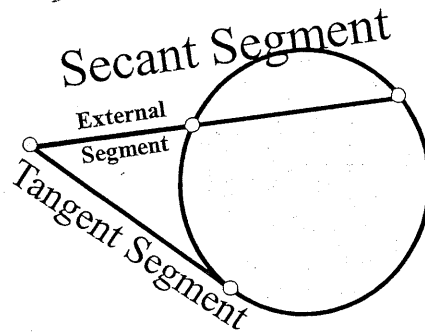


7)

Example 4:



8)

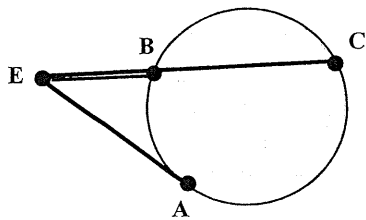


Notice that
on the
tangent
segment,
the **outside**
is the
whole!



9)

Type 2 (with a twist): Secant and Tangent

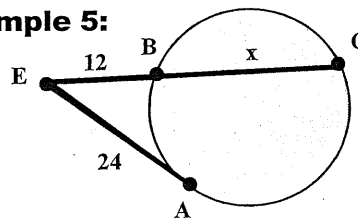


outside • whole = outside • whole

$$EA^2 = EB \cdot EC$$

10)

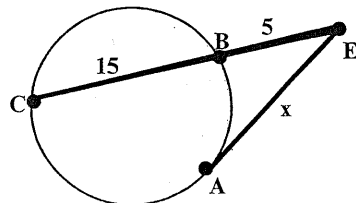
Example 5:



outside • whole = outside • whole

11)

Example 6:



outside • whole = outside • whole

12)

What you should know by now...

part • part = part • part

outside • whole = outside • whole