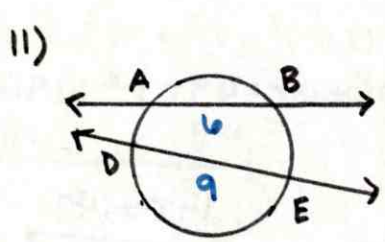
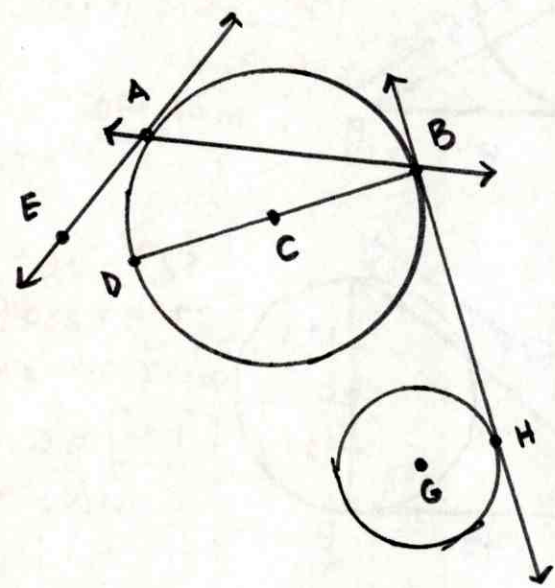


10.1

- 1) The points A and B are on $\odot C$. If c is a point on \overline{AB} , then \overline{AB} is a diameter.
- 3) B G A. Center G
- 4) \overleftrightarrow{BH} H B. Radius \overline{CB}
- 5) \overline{AB} C C. Chord \overline{AB}
- 6) \overleftrightarrow{AB} E D. Diameter \overline{BD}
- 7) \overleftrightarrow{AE} F E. Secant \overleftrightarrow{AB}
- 8) G A F. Tangent \overleftrightarrow{AE}
- 9) \overline{CD} B G. Point of tangency B
- 10) \overline{BD} D H. Common tangent \overleftrightarrow{BH}



The length of secant \overline{AB} is 6. X

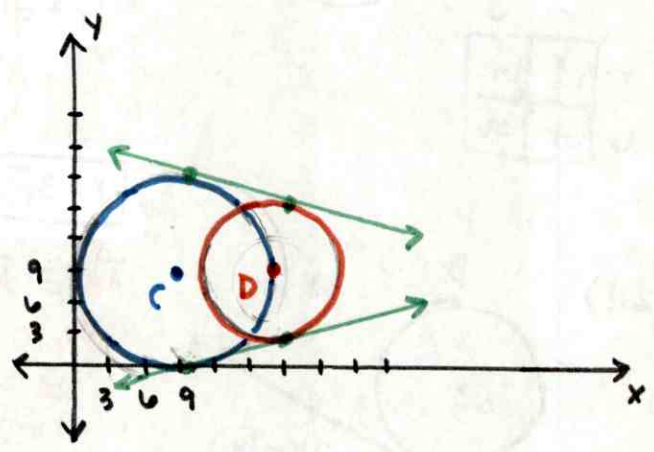
The length of chord \overline{AB} is 6.

12) what are the radius and diameter of $\odot C$?

$r=9$ $d=2(9)$
 $d=18$

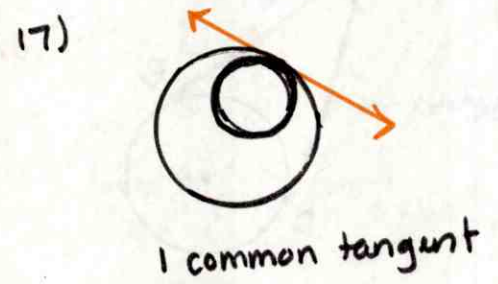
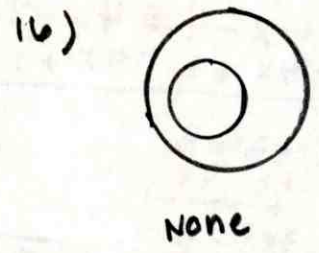
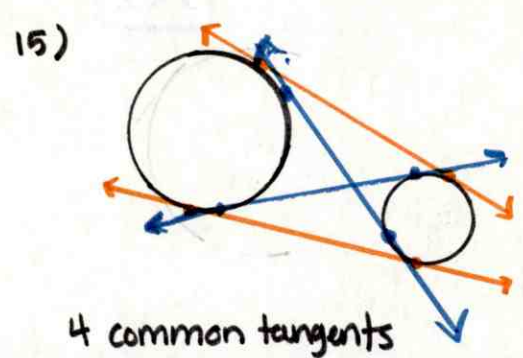
13) what are the radius and diameter of $\odot D$?

$r=6$ $d=2(6)$
 $d=12$



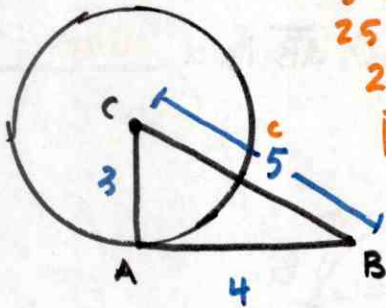
14) common tangents. *Green lines*

How many common tangents



Determine whether \overline{AB} is tangent to $\odot C$. Explain.

18)



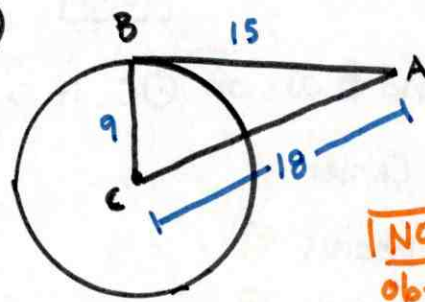
$$5^2 = 3^2 + 4^2$$

$$25 = 9 + 16$$

$$25 = 25 \checkmark$$

Yes b/c it is
a rt Δ .
 $m\angle A = 90^\circ$

19)



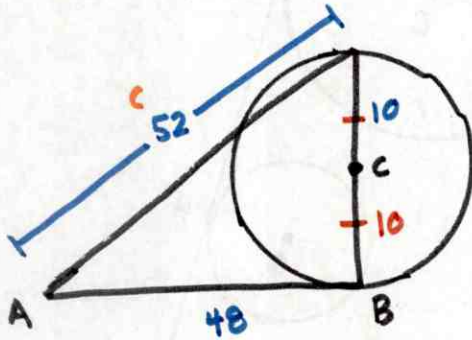
$$18^2 = 9^2 + 15^2$$

$$324 = 81 + 225$$

$$324 \neq 306$$

No This is an
obtuse Δ .
 $m\angle B > 90^\circ$

20)



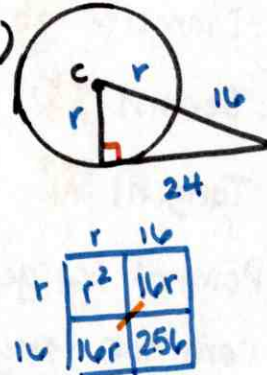
$$52^2 = 48^2 + 20^2$$

$$2704 = 2304 + 400$$

$$2704 = 2704 \checkmark$$

Yes b/c it is
a rt Δ . $m\angle B = 90^\circ$

21)



$$(r+16)^2 = r^2 + 24^2$$

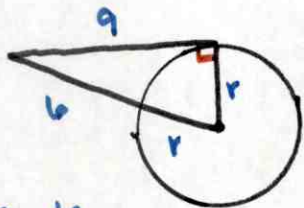
$$r^2 + 32r + 256 = r^2 + 576$$

$$\quad \quad \quad -256 \quad \quad -256$$

$$32r = 320$$

r = 10

22)



$$(r+6)^2 = r^2 + 9^2$$

$$r^2 + 12r + 36 = r^2 + 81$$

$$\quad \quad \quad -36 \quad \quad -36$$

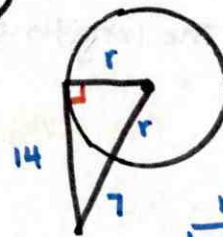
$$12r = 45$$

$$r = 3.75$$

or $\frac{15}{4}$

r	6
r ²	6r
6r	36

23)



$$(r+7)^2 = r^2 + 14^2$$

$$r^2 + 14r + 49 = r^2 + 196$$

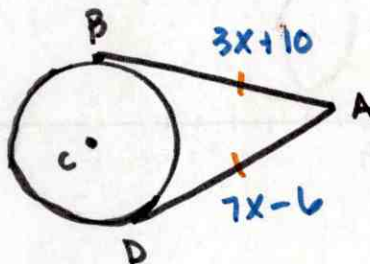
$$\quad \quad \quad -49 \quad \quad -49$$

$$14r = 147$$

r = 10.5
or $\frac{21}{2}$

r	7
r ²	7r
7r	49

24)



$$\overline{AB} \cong \overline{AD}$$

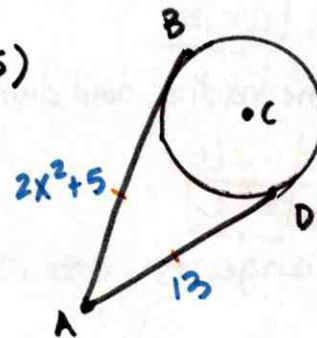
$$3x+10 = 7x-6$$

$$10 = 4x-6$$

$$16 = 4x$$

x = 4

25)



$$\overline{AB} \cong \overline{AD}$$

$$2x^2+5 = 13$$

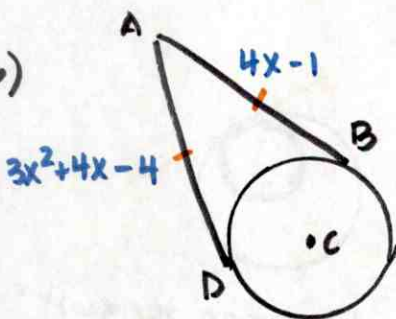
$$\quad \quad \quad -5 \quad -5$$

$$\frac{2x^2}{2} = \frac{8}{2}$$

$$x^2 = 4$$

x = 2

26)



$$\overline{AD} \cong \overline{AB}$$

$$3x^2+4x-4 = 4x-1$$

$$\quad \quad \quad -4x+1 \quad -4x+1$$

$$3x^2-3 = 0$$

$$\quad \quad \quad +3 \quad +3$$

$$\frac{3x^2}{3} = \frac{3}{3}$$

$$x^2 = 1$$

x = 1