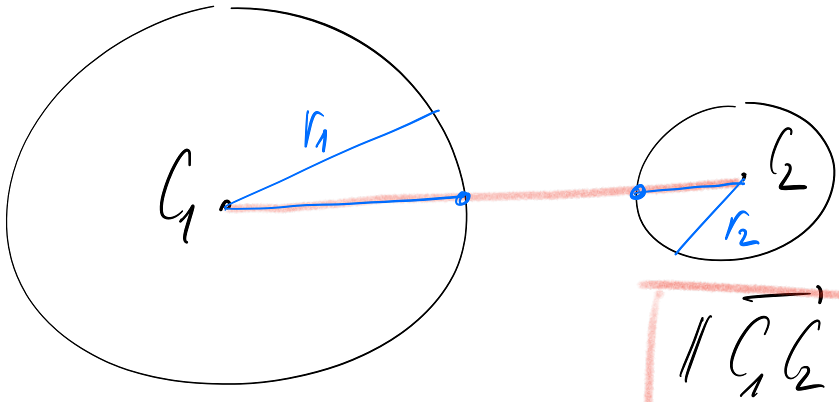
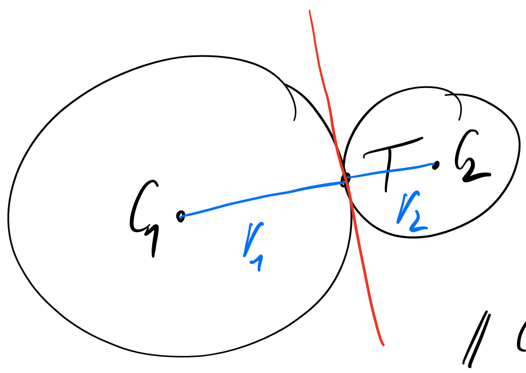


Sans intersections

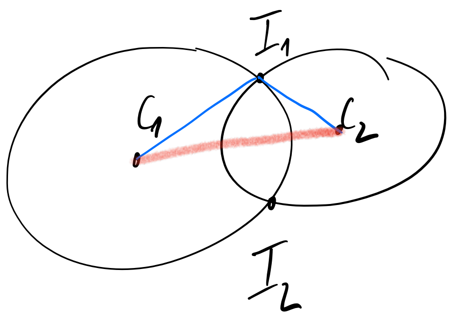
$$\boxed{\|\overrightarrow{C_1C_2}\|} > r_1 + r_2$$



tangents

$$\|\overrightarrow{C_1C_2}\| = r_1 + r_2$$

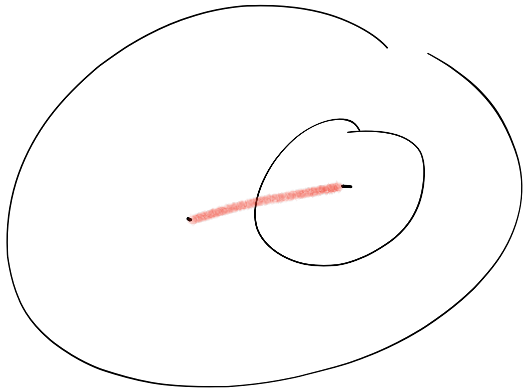
(1 intersection)

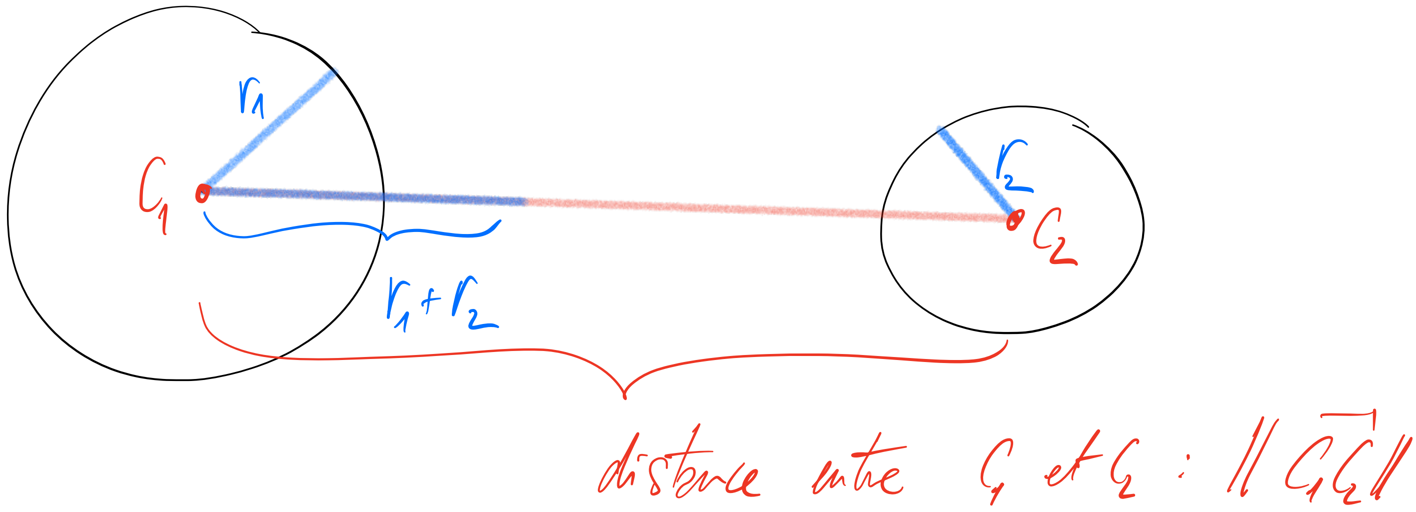


sécants

(2 intersections)

$$\|\overrightarrow{C_1C_2}\| < r_1 + r_2$$




C_1
r_1
r_2
C_2
$r_1 + r_2$
distance entre C_1 et C_2 : $\|\overrightarrow{C_1C_2}\|$

$\boxed{3.3.4}$ « Méthode des intersections » Ce qui revient à résoudre le système.

$$\begin{cases} x^2+y^2-16x-20y+115=0 \\ x^2+y^2+8x-10y+5=0 \end{cases} \qquad L_2 \leftarrow L_2 - L_1$$

$$24x+10y-110=0$$

$$12x+5y-55=0$$

$$5y=-12x+55$$

$$y=-\frac{12}{5}x+11$$

$$x^2+\left(-\frac{12}{5}x+11\right)^2+8x+\frac{120}{5}x-110+5=0$$

$$x^2+\frac{144}{25}x^2-\frac{264}{5}x+121+8x+24x-105=0$$

$$\frac{169}{25}x^2-\frac{104}{5}x+16=0$$

$$169x^2 - 520x + 400 = 0$$

$$(13x - 20)^2 = 0$$

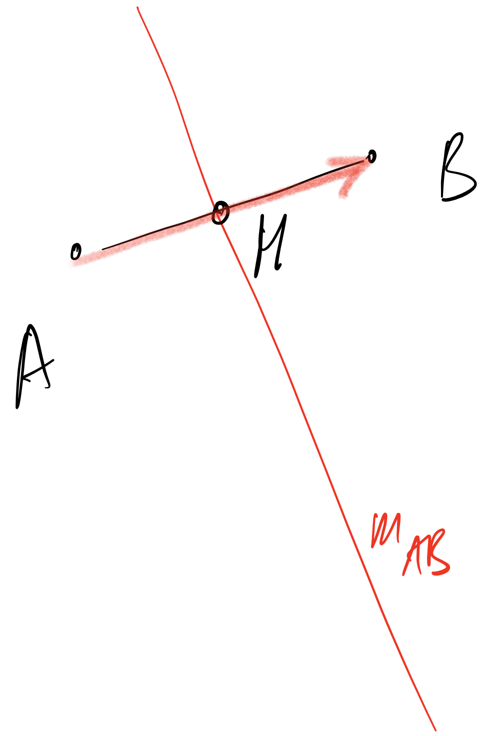
$$x = \frac{20}{13} \qquad y = -\frac{12}{\cancel{5}_{1}} \cdot \frac{\cancel{20}^{4}}{13} + 11 = \frac{-48 + 143}{13} = \frac{95}{13}$$

Les cercles sont tangents, car il n'y a qu'une intersection.

$$(x^2-2x+6)^2 = (x^2-2x+6)(x^2-2x+6)$$

$$=$$

$$(a+b+c)^2 = a^2+b^2+c^2+2ab+2ac+2bc$$



$$M = \frac{A+B}{2}$$

$$\overrightarrow{AB} \perp m_{AB}$$