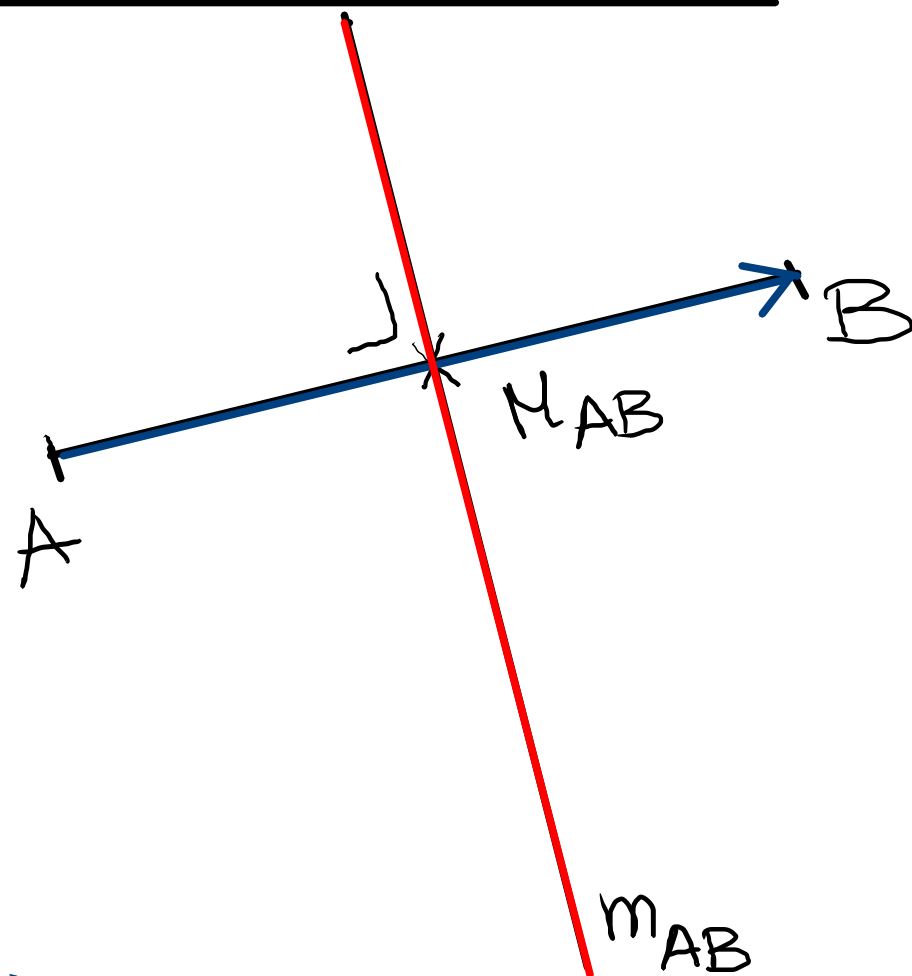


Rappel médiatrice et bissectrice

♡ médiatrice



$$A(-3; 1) \quad B(2; 3)$$

$$\vec{AB} = \begin{pmatrix} 2 \\ 3 \end{pmatrix} - \begin{pmatrix} -3 \\ 1 \end{pmatrix} = \begin{pmatrix} 5 \\ 2 \end{pmatrix} = \vec{n}_{m_{AB}}$$

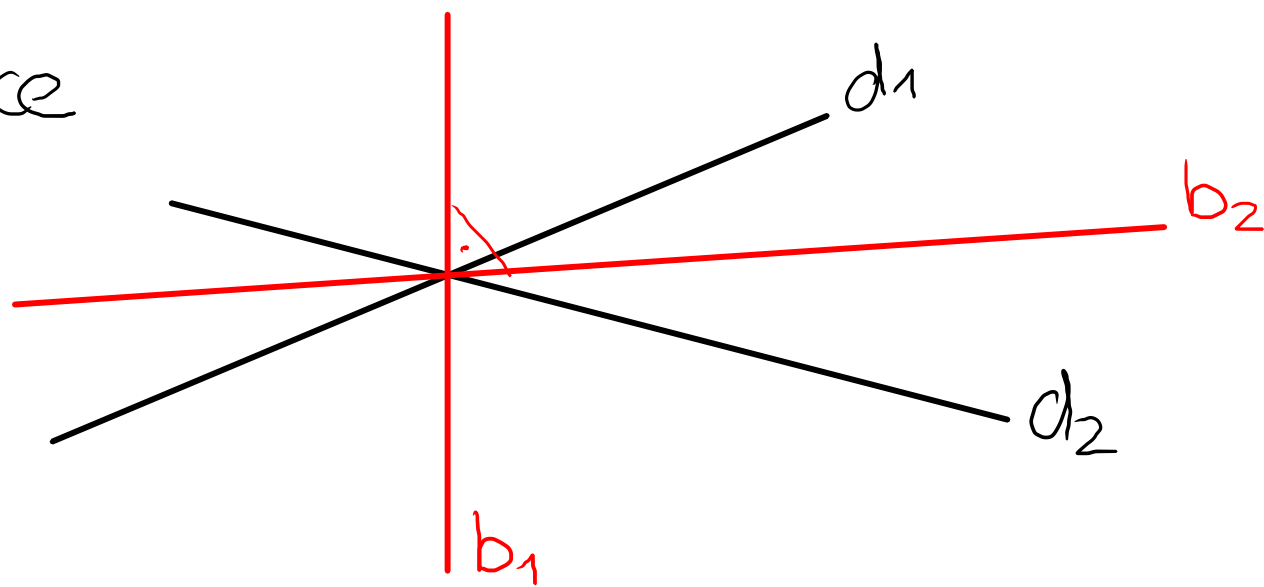
$$\text{et } M_{AB} \left(\frac{-3+2}{2}; \frac{1+3}{2} \right) = \left(-\frac{1}{2}; 2 \right)$$

$$\Rightarrow m_{AB} : 5x + 2y + c = 0$$

$$\text{et } M_{AB} \in m_{AB} \Rightarrow 5 \cdot \left(-\frac{1}{2} \right) + 2 \cdot 2 + c = 0 \Leftrightarrow c = -\frac{3}{2}$$

$$\Rightarrow m_{AB} : 5x + 2y - \frac{3}{2} = 0 \Leftrightarrow \underline{10x + 4y - 3 = 0}$$

♡ bissectrice



$$d_1: 3x + 4y + 2 = 0$$

$$d_2: 5x + 12y + 1 = 0$$

$$\frac{3x + 4y + 2}{\underbrace{\sqrt{3^2 + 4^2}}_5} = \pm \frac{5x + 12y + 1}{\underbrace{\sqrt{5^2 + 12^2}}_{13}} \quad | \cdot 5 \cdot 13$$

$$13(3x + 4y + 2) = \pm 5(5x + 12y + 1)$$

$$39x + 52y + 26 = \pm (25x + 60y + 5)$$

$$\begin{array}{l} + \\ - \end{array} \left\{ \begin{array}{l} 39x + 52y + 26 = 25x + 60y + 5 \quad \Leftrightarrow \underline{14x - 8y + 21 = 0} \quad (b_1) \\ 39x + 52y + 26 = -25x - 60y - 5 \quad \Leftrightarrow \underline{64x + 112y + 31 = 0} \quad (b_2) \end{array} \right.$$