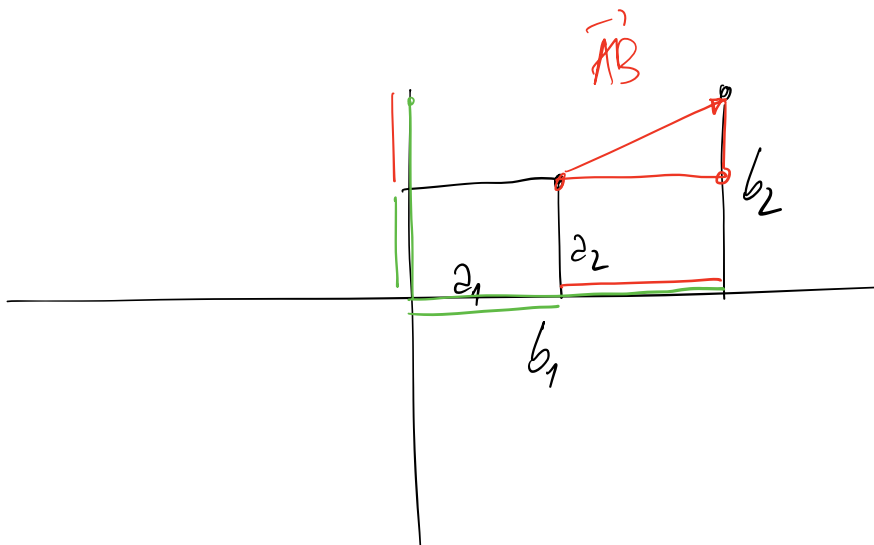
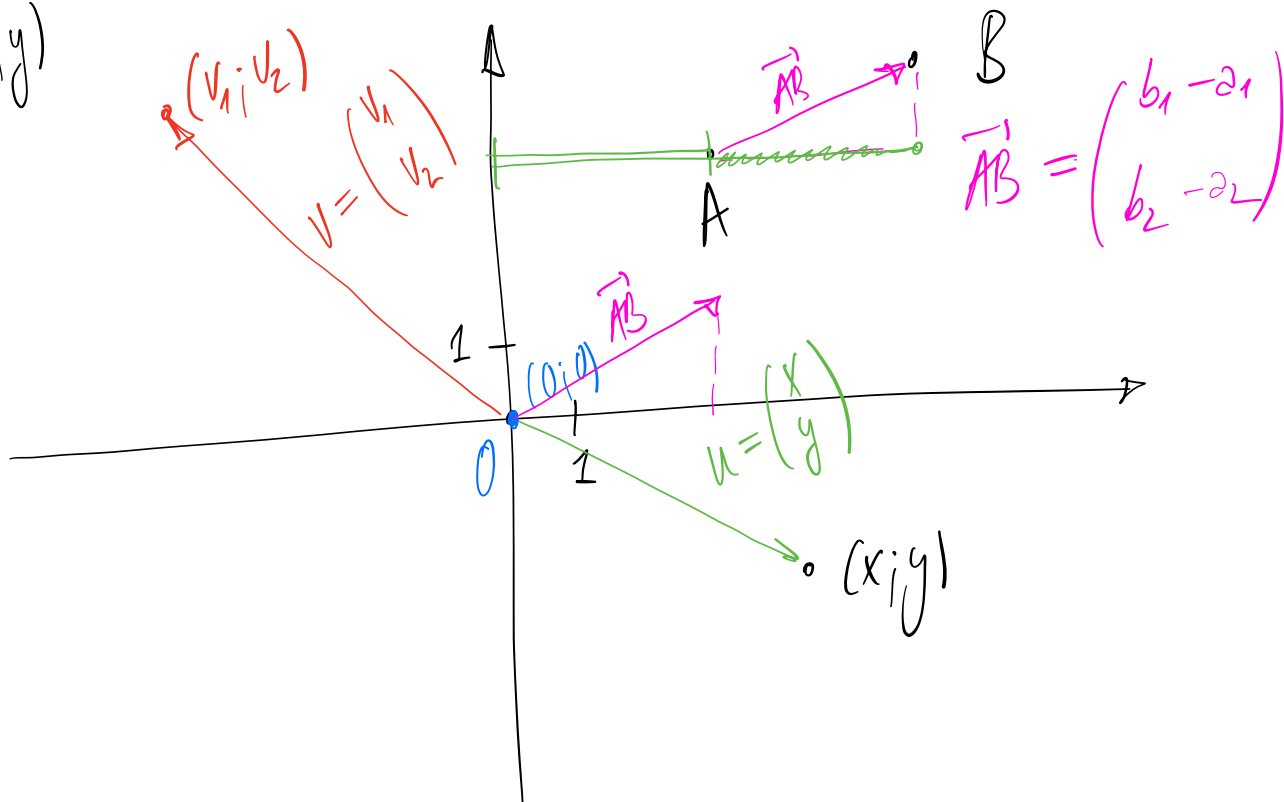
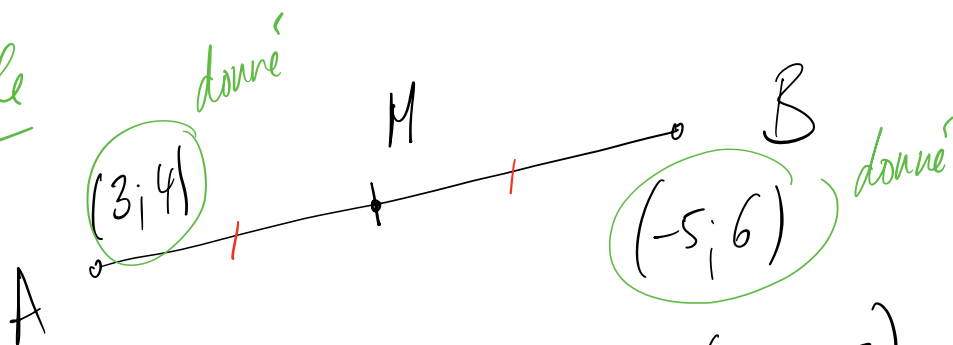


$\mathbb{R}^2 \ni (x; y)$

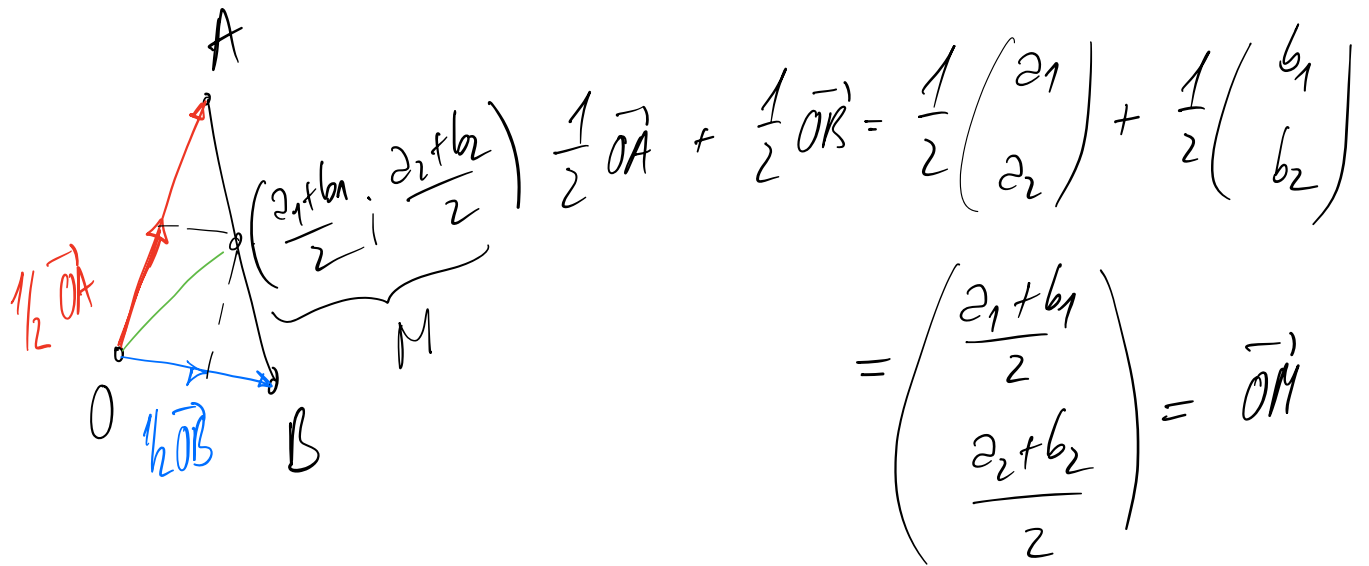
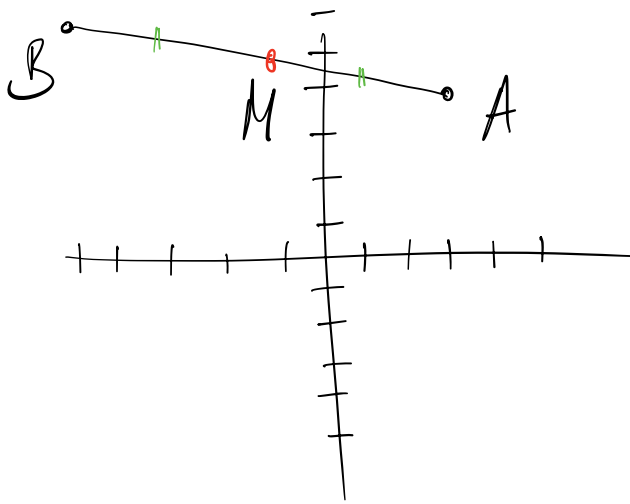


Example

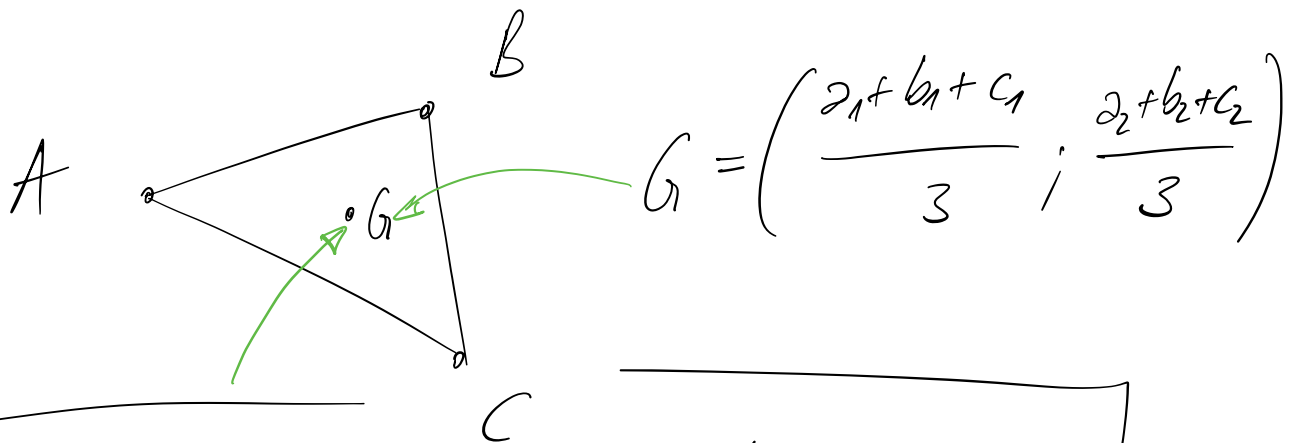


$$M \left(\frac{3 + (-5)}{2}; \frac{4 + 6}{2} \right) = (-1; 5)$$

$A(a_1; a_2)$
 $B(b_1; b_2)$
 $M = \left(\frac{a_1 + b_1}{2}; \frac{a_2 + b_2}{2} \right)$



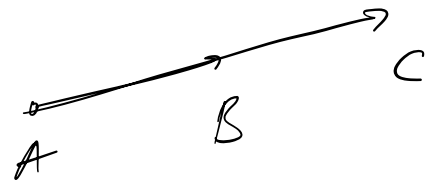
M est le milieu du segment AB.



G est le centre de gravité de ABC.

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

$$\vec{AB} = \begin{pmatrix} -4 \\ 1 \end{pmatrix} \quad \vec{AC} = \begin{pmatrix} k-1 \\ -1 \end{pmatrix}$$



$$\begin{vmatrix} -4 & k-1 \\ 1 & -1 \end{vmatrix} = 4 - (k-1) = 0$$

$$\Leftrightarrow k = 5$$

$$X^5 + 3X^4 - 16X - 48 = P(X)$$

- ① DIVISEURS DU TERME CONSTANT : $\{ \pm 1; \pm 2; \pm 3; \dots \}$
- ② SCHEMAS DE HORNER AVEC LES DIVISEURS:

	1	3	0	0	-16	-48
1		1	4	4	4	-12
	1	4	4	4	-12	-60
	1	3	0	0	-16	-48
-1		-2	-2	2	-2	18
	1	2	-2	2	-18	-30

DIVISIBLE PAR
(X-1) ?

(X+1) ?

$$\begin{array}{r}
 1 \quad 3 \quad 0 \quad 0 \quad -16 \quad -48 \\
 -2 \quad -2 \quad -2 \quad 4 \quad -8 \quad 48 \\
 \hline
 1 \quad 1 \quad -2 \quad 4 \quad -24 \quad 0
 \end{array}$$

$(x+2)$?

$$P(x) = (x+2) \underbrace{(x^4 + x^3 - 2x^2 + 4x - 24)}$$

On recommence