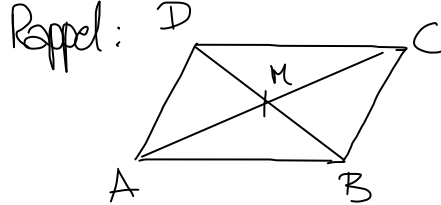


Ex 3.2 p. 88

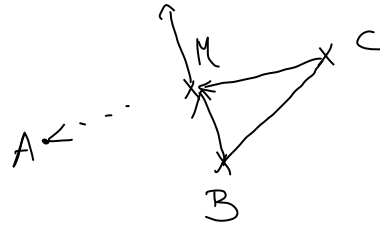


$$\vec{AB} = \vec{DC}$$

a) $B(3; -3)$

$C(1; 2)$

$M(1; 0)$



1) $2 \cdot \vec{CM} = \vec{CA}$

avec $A(a_1; a_2)$

$$\Leftrightarrow 2 \cdot \begin{pmatrix} 1-1 \\ 0-2 \end{pmatrix} = \begin{pmatrix} a_1-1 \\ a_2-2 \end{pmatrix}$$

$$\Leftrightarrow 2 \begin{pmatrix} 0 \\ -2 \end{pmatrix} = \begin{pmatrix} a_1-1 \\ a_2-2 \end{pmatrix}$$

$$\Leftrightarrow \begin{pmatrix} 0 \\ -4 \end{pmatrix} = \begin{pmatrix} a_1-1 \\ a_2-2 \end{pmatrix}$$

$$\Leftrightarrow \begin{cases} a_1-1=0 \\ a_2-2=-4 \end{cases}$$

$$\Leftrightarrow \begin{cases} a_1=1 \\ a_2=-2 \end{cases}$$

$$\Rightarrow \underline{A(1; -2)}$$

2) $\vec{AB} = \vec{DC}$

avec $D(d_1; d_2)$

$$\Leftrightarrow \begin{pmatrix} 3-1 \\ -3+2 \end{pmatrix} = \begin{pmatrix} 1-d_1 \\ 2-d_2 \end{pmatrix}$$

$$\Leftrightarrow \begin{pmatrix} 2 \\ -1 \end{pmatrix} = \begin{pmatrix} 1-d_1 \\ 2-d_2 \end{pmatrix}$$

$$\Leftrightarrow \begin{cases} 1-d_1=2 \\ 2-d_2=-1 \end{cases}$$

$$\Leftrightarrow \begin{cases} d_1=-1 \\ d_2=3 \end{cases}$$

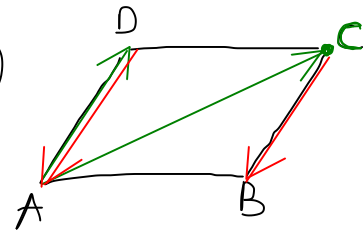
$$\Rightarrow \underline{D(-1; 3)}$$

Ex 3.2 b)

$$\vec{AC} = \begin{pmatrix} 4 \\ -5 \end{pmatrix}$$

$$\vec{AD} = \begin{pmatrix} 2 \\ 0 \end{pmatrix}$$

$$C(1; -2)$$



$$1) \vec{AC} = \vec{OC} - \vec{OA} \Leftrightarrow \vec{OA} = \vec{OC} - \vec{AC}$$

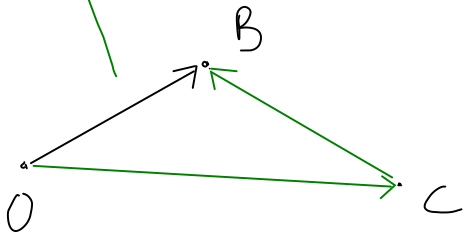
$$= \begin{pmatrix} 1 \\ -2 \end{pmatrix} - \begin{pmatrix} 4 \\ -5 \end{pmatrix} = \begin{pmatrix} -3 \\ 3 \end{pmatrix} \Rightarrow A(-3; 3)$$

$$2) \vec{AD} = \vec{OD} - \vec{OA} \Leftrightarrow \vec{OD} = \vec{AD} + \vec{OA} = \begin{pmatrix} 2 \\ 0 \end{pmatrix} + \begin{pmatrix} -3 \\ 3 \end{pmatrix} = \begin{pmatrix} -1 \\ 3 \end{pmatrix}$$

$$\Rightarrow D(-1; 3)$$

$$3) \vec{OB} = \vec{OC} + \vec{CB} \stackrel{\text{paralelo.}}{=} \vec{OC} + \vec{DA} = \begin{pmatrix} 1 \\ -2 \end{pmatrix} + \begin{pmatrix} -2 \\ 0 \end{pmatrix} = \begin{pmatrix} -1 \\ -2 \end{pmatrix}$$

$$\Rightarrow B(-1; -2)$$



ex 3.1

3.2 c)

3.3 a)