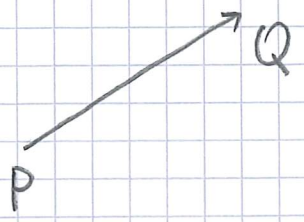
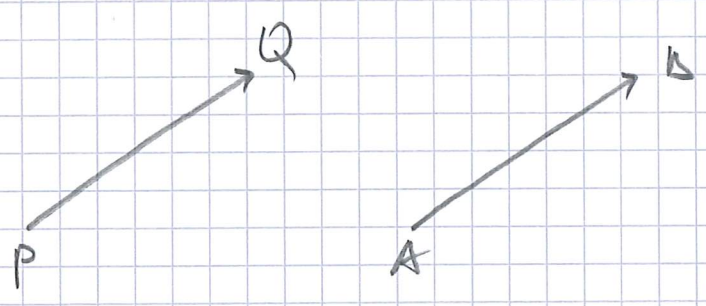


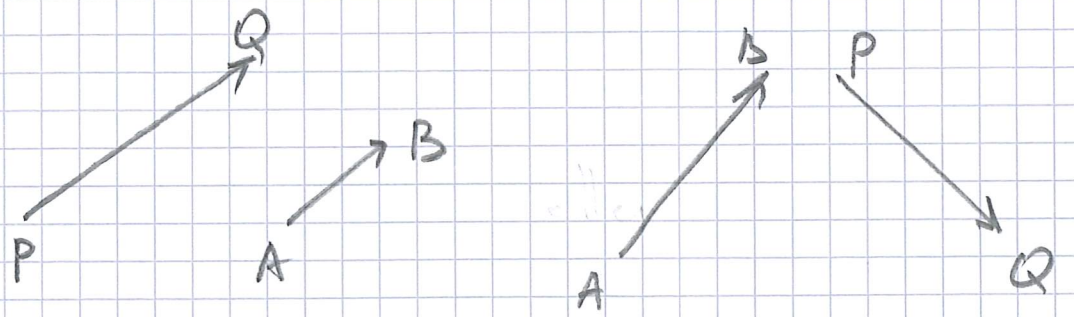
$\overline{PQ}$

en riktad sträcka



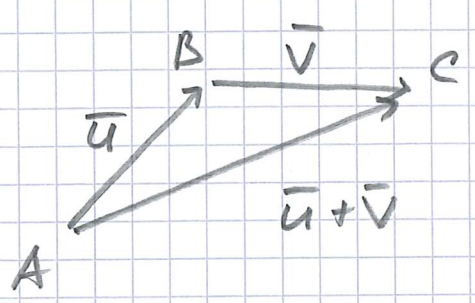
Samma riktning & samma längd

$\Rightarrow \overline{PQ} = \overline{AB}$

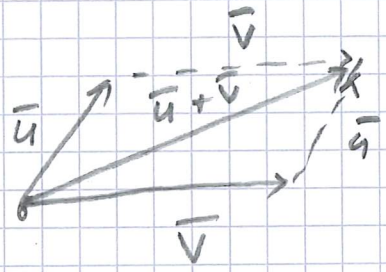


$\overline{AB} \neq \overline{PQ}$

Operationer.

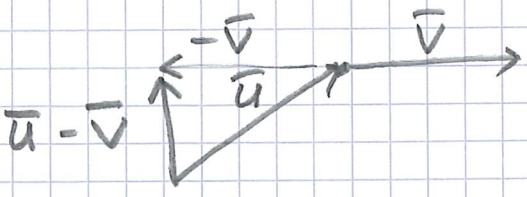


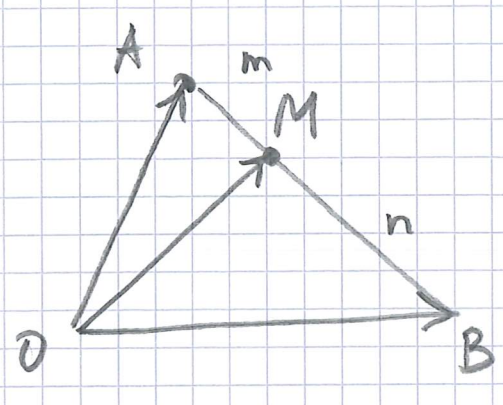
(triangelregeln)



(parallellogramregeln)

Obs $\bar{u}+\bar{v}=\bar{v}+\bar{u}$





$$\frac{AM}{MB} = \frac{m}{n} \iff$$

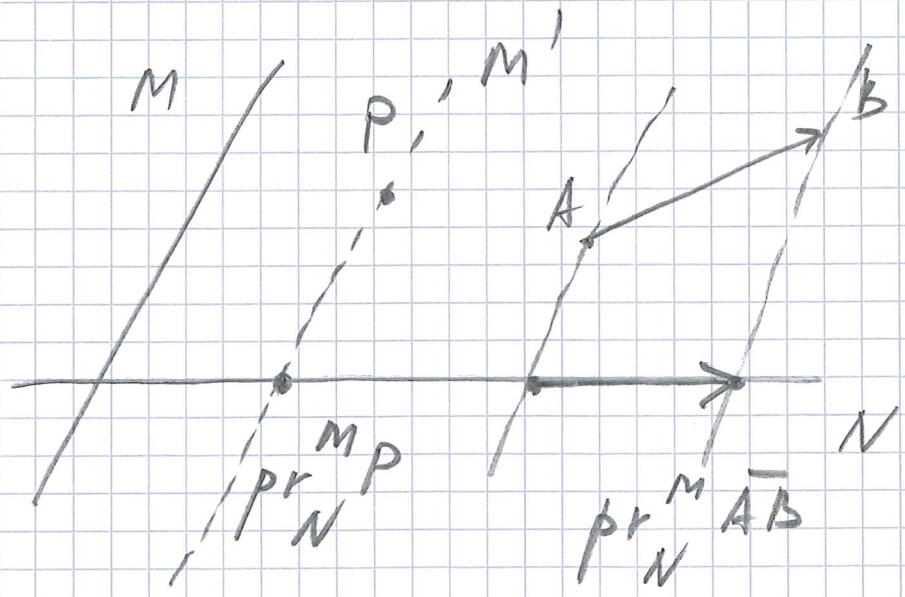
$\exists\ x$ s.a.

$$AM = mx \quad \& \quad MB = n \cdot x$$

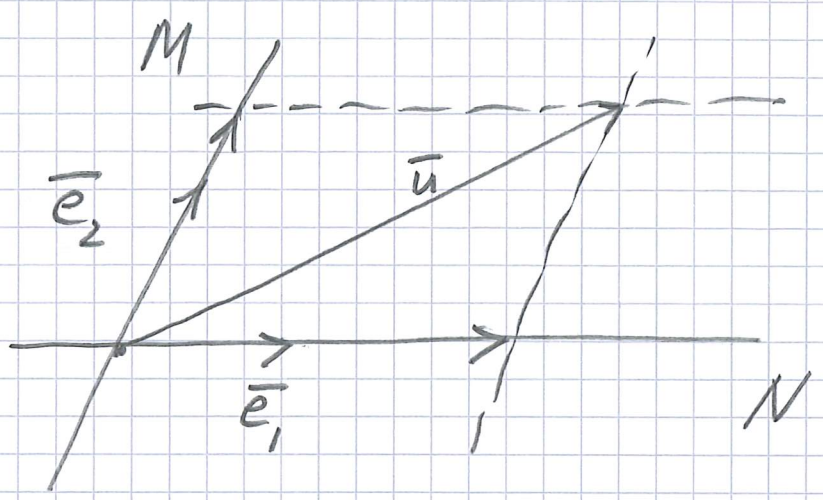
$$\overline{OM} = \frac{n}{m+n}\,\overline{OA} + \frac{m}{m+n}\cdot\overline{OB}$$

(en <u>linjär kombination</u> av $\overline{OA}$ o $\overline{OB}$)

<u>Projektionen</u>



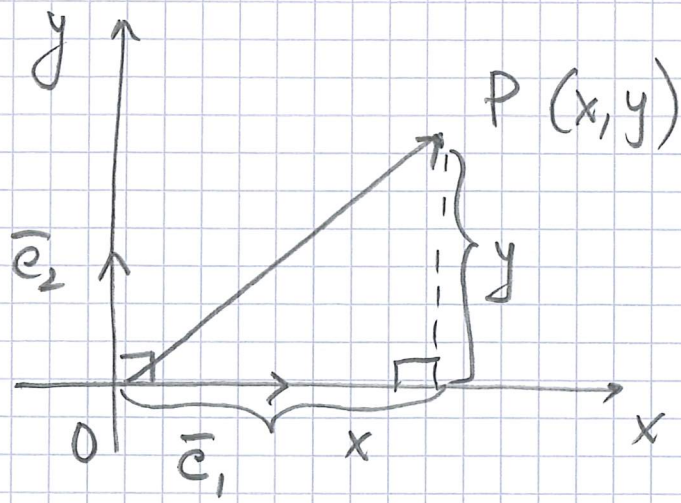
En bas i planet



$$\bar{u} = pr_N^M \bar{u} + pr_M^N \bar{u} = x \cdot \bar{e}_1 + y \bar{e}_2$$

koordinater av $\bar{u}$ i basen $\bar{e}_1, \bar{e}_2$

Ett ortonormerat koordinat system i planet: O & en ON bas



P (x, y), där x, y s.a

$$\overline{OP} = x \cdot \bar{e}_1 + y \cdot \bar{e}_2.$$

$$|\overline{OP}| = \sqrt{x^2 + y^2} \quad \text{(Pythagoras sats)}$$