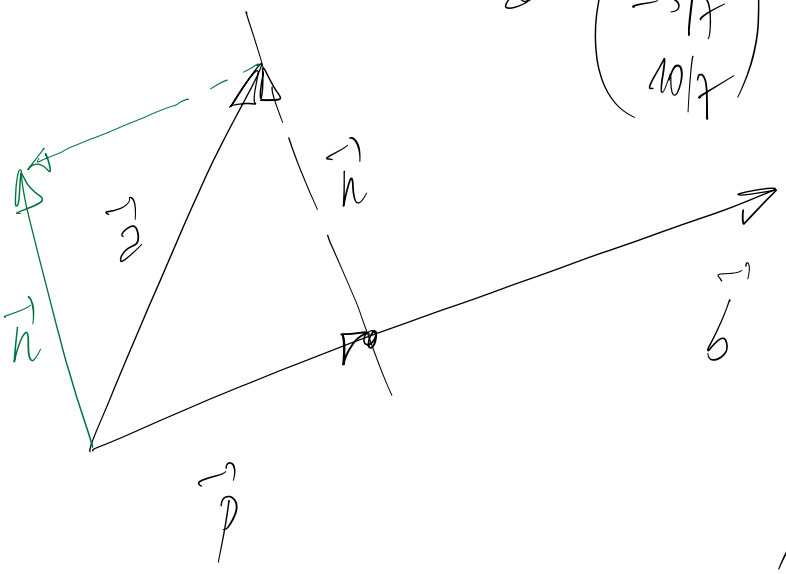
$$\vec{a} = \begin{pmatrix} 20/7 \\ -5/7 \\ 10/7 \end{pmatrix} + \begin{pmatrix} -6/7 \\ -2/7 \\ 11/7 \end{pmatrix}$$



$$\vec{p} = \frac{\vec{a} \cdot \vec{b}}{\|\vec{b}\|^2} \cdot \vec{b}$$

$$\vec{a} = \vec{p} + \vec{n}$$

$$\vec{n} = \vec{a} + (\vec{a} - \vec{p})$$

$$\vec{p} = \frac{8+1+6}{16+1+4} \begin{pmatrix} 4 \\ -1 \\ 2 \end{pmatrix} = \frac{15}{21} \begin{pmatrix} 4 \\ -1 \\ 2 \end{pmatrix}$$

$$= \begin{pmatrix} 20/7 \\ -5/7 \\ 10/7 \end{pmatrix} \qquad \vec{a} - \vec{p} = \begin{pmatrix} -6/7 \\ -2/7 \\ 11/7 \end{pmatrix}$$