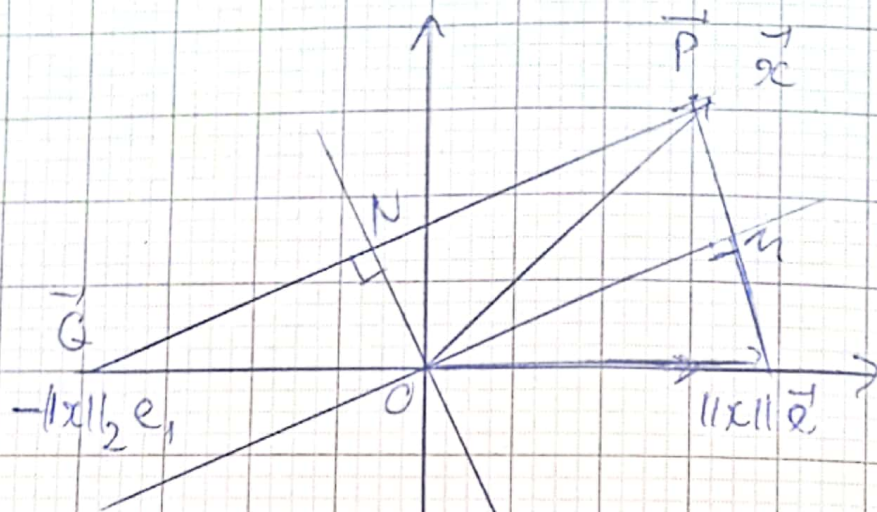


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xây dựng F sao cho  $F_x = -\|x\|_2 e$



$$\vec{OQ} = \vec{OP} + \vec{PQ}$$

$$\Rightarrow \vec{PQ} = \vec{OQ} - \vec{OP}$$

$$= -\|x\|_2 e_1 - \vec{x}$$

$$P_{\perp q} = I + \frac{qq^*}{q^*q}$$

$\vec{PQ} \perp \text{hyperplane } (H)$

$$\vec{PN} = \frac{1}{2} \vec{PQ}$$

$$\vec{ON} = P_H \vec{x}$$

$$\vec{OQ} = \vec{OP} + 2\vec{PN}$$

$$= \vec{OP} + 2[\vec{ON} - \vec{OP}]$$

$$= 2\vec{ON} - \vec{OP}$$

$$= 2P_H \vec{x} - \vec{x}$$

$$= 2(I + \frac{qq^*}{q^*q}) \vec{x} - \vec{x}$$

$$= 2\vec{x} + \frac{2qq^*}{q^*q} \vec{x} = \left[ I + \frac{2qq^*}{q^*q} \right] \vec{x}$$

$$Fx := \left[ I + \frac{2qq^*}{q^*q} \right] \cdot \vec{x}$$

$$F = I + \frac{2qq^*}{q^*q} \quad (q = \|x\|_2 e_1 - \vec{x})$$