I Frol distree blu tre reday J=(1,0,7) } ~ = (0,-1,2). distance is necessary by Nalty. 1/x1/p = (2/x1/p)/p = (cp + bp + ... Np)/p Honever, to get the distance blue tree vector, we are de 2-3.  $||\vec{x} - \vec{x}||_{2} = d(\vec{x}, \vec{x}) = \sqrt{(1-0)^{2} + (0-(-1)^{2}) + (7-2)^{2}}$ = (1+1+25) = (3x3x3) = (3x3x3) = 3(3x3x3) = 3(3x3x3x3) = 3(3xBinks (1,9) = ((1,0,-3), (-1,0,-3)) The magnitude of vector from P to Q is the distance from point P, to point Q: -3+(43)Down! =)  $||PQ||_2 = \int (2)^2 + (0)^2 + (0)^2 = 2$ distance from point P, to point Q.

$$\frac{\partial S}{\|\partial \|_{2}} = \int (+4+9) = \int (-1)^{4}$$

$$\frac{\partial S}{\partial \|\partial \|_{2}} = \int (-1)^{4} + 4 + 4 + 4 = \int (-1)^{4}$$

$$\frac{\partial S}{\partial \|\partial \|_{2}} = \int (-1)^{4} + 4 + 4 + 4 = \int (-1)^{4}$$

$$\frac{\partial S}{\partial |\partial |_{2}} = \int (-1)^{4} + 4 + 4 + 4 = \int (-1)^{4}$$

$$\frac{\partial S}{\partial |\partial |_{2}} = \int (-1)^{4} + 4 + 4 + 4 + 4 = \int (-1)^{4}$$

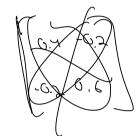
GG) Find the dot product of 
$$\vec{z} = \begin{bmatrix} -1 \\ 3 \end{bmatrix}$$
,  $\vec{b} = \begin{bmatrix} -3 \\ -1 \end{bmatrix}$ .

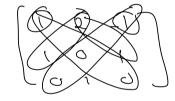
Q7) Nestox Multiplication

$$\frac{2}{28} = \begin{bmatrix} -1 \\ -4 \end{bmatrix}, \quad \frac{1}{5} = \begin{bmatrix} -2 \\ -3 \end{bmatrix}$$

$$= \frac{1}{2} \vec{a} \cdot \vec{b} = (27 + 5) = 32$$







Twee Metrx.