X product.

$$V := \begin{bmatrix} v_1 \\ v_2 \\ v_3 \end{bmatrix} \qquad Q := \begin{bmatrix} q_1 \\ q_2 \\ q_3 \end{bmatrix} \qquad V = \begin{pmatrix} 0 \\ 2 \\ 0 \end{pmatrix} \qquad Q = \begin{pmatrix} 2 \\ 0 \\ 0 \end{pmatrix} \qquad V \times Q = \begin{pmatrix} 0 \\ 0 \\ -4 \end{pmatrix}$$

θ the angle between the vectors is: $\theta := \frac{\pi}{2}$

VxQ= $\begin{aligned} v_2 \cdot q_3 - v_3 \cdot q_2 &= 0 \\ v_3 \cdot q_1 - v_1 \cdot q_3 &= 0 \\ v_1 \cdot q_2 - v_2 \cdot q_1 &= -4 \end{aligned}$ = $V \times Q = \begin{pmatrix} 0 \\ 0 \\ -4 \end{pmatrix}$ and is orthogonal to V and Q

$$V\_length := \sqrt{(v_1)^2 + (v_2)^2 + (v_3)^2} \qquad Q\_length := \sqrt{(q_1)^2 + (q_2)^2 + (q_3)^2}$$

$$V\_length = 2 \qquad Q\_length = 2$$

$$V\_length \cdot Q\_length \cdot \sin(\theta) = 4 \quad = \quad |V| \cdot |Q| \cdot \sin(\theta) = 4 \quad = \quad |V \times Q| = 4$$

Observe: if V || Q then $|V \times Q| = 0$

Test: $\theta := \operatorname{asin}\left(\frac{4}{|V| \cdot |Q|}\right)$ so.. $2 \cdot \theta = 3.142$ see $\theta := \frac{\pi}{2}$