

Cross Product

Friday, 25 July 2025 10:35 PM

$$\vec{u} = 5\mathbf{i} + 6\mathbf{j} + 2\mathbf{k}$$

$$\vec{v} = \mathbf{i} + \mathbf{j} + \mathbf{k}$$

$$\vec{u} \times \vec{v} = ?$$

$$= \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ 5 & 6 & 2 \\ 1 & 1 & 1 \end{vmatrix}$$

$$\vec{u} \times \vec{v} = (6 - 2)\mathbf{i} - (5 - 2)\mathbf{j} + (5 - 6)\mathbf{k}$$

$$\vec{u} \times \vec{v} = 4\mathbf{i} - 3\mathbf{j} - \mathbf{k}$$