1.1.10.30

EE24BTECH11018 - Durgi Swaraj Sharma

Question:
The direction cosines of the vector $\left(2\hat{i} + 2\hat{j} - \hat{k}\right)$ are _____.

Solution:
The unit vector in the direction of the given vector is

$$\mathbf{A} = \frac{1}{\sqrt{9}} \begin{pmatrix} 2 \\ 2 \\ -1 \end{pmatrix} \tag{0.1}$$

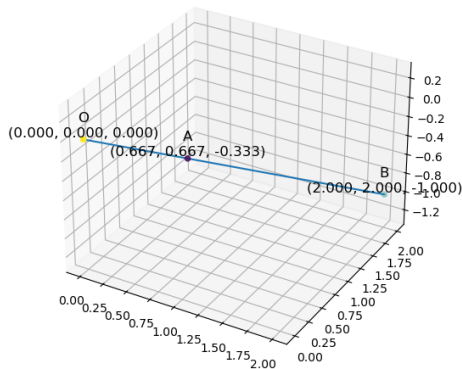$$\mathbf{A} = \frac{1}{3} \begin{pmatrix} 2 \\ 2 \\ -1 \end{pmatrix} \tag{0.2}$$

Fig. 0.1: Vector B and Unit Vector A