

1.10.30

EE25BTECH11062 - Vivek K Kumar

Question:

The direction cosines of the vector $\begin{pmatrix} 2 \\ 2 \\ -1 \end{pmatrix}$ are _____

Solution:

Name	Point
A	$\begin{pmatrix} 2 \\ 2 \\ -1 \end{pmatrix}$

TABLE 0: Variables Used

The unit vector along the direction of given vector is

$$\frac{\mathbf{A}}{\|\mathbf{A}\|} = \frac{1}{3} \begin{pmatrix} 2 \\ 2 \\ -1 \end{pmatrix} \quad (0.1)$$

$$= \begin{pmatrix} \frac{2}{3} \\ \frac{2}{3} \\ -\frac{1}{3} \end{pmatrix} \quad (0.2)$$

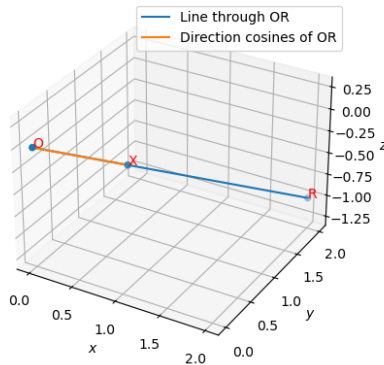


Fig. 0.1: Given vector and its direction cosines