1.1.2.2

EE24BTECH11024 - G. Abhimanyu Koushik

Question:
Find the values of x, y, z so that the vectors $x\hat{i} + 2\hat{j} + z\hat{k}$ and $2\hat{i} + y\hat{j} + \hat{k}$ are equal
Solution:

Variable	Description
$\mathbf{v}_1$	$x\hat{i} + 2\hat{j} + z\hat{k}$
$\mathbf{v}_2$	$2\hat{i} + y\hat{j} + \hat{k}$

TABLE 0: Variables Used

$$\begin{pmatrix} x \\ 2 \\ z \end{pmatrix} = \begin{pmatrix} 2 \\ y \\ 1 \end{pmatrix} \tag{0.1}$$

$$x = 2, y = 2, z = 1 \tag{0.2}$$

The values of x, y, z are $2, 2, 1$ respectively.

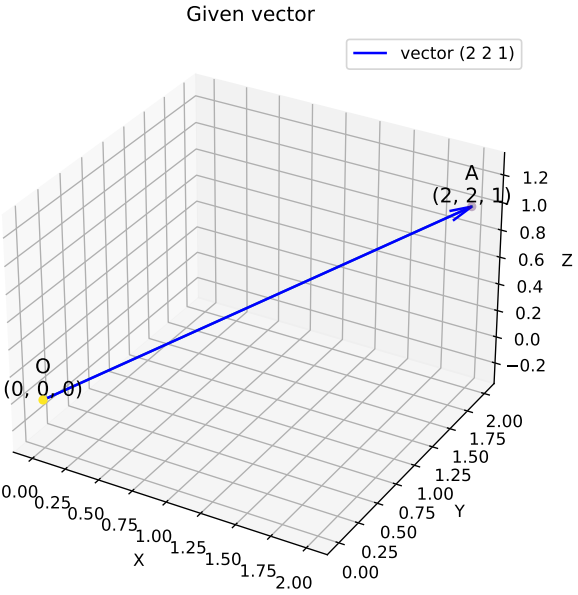

Fig. 0.1: Line segment represent the vector