1.2.9

EE24BTECH11001 - Aditya Tripathy

Question:
Find the vector joining the points $\mathbf{P}(2,3,0)$ and $\mathbf{Q}(-1,-2,-4)$ directed from $\mathbf{P}$ to $\mathbf{Q}$.
Solution:
From (1.1.1.1), the direction vector of AB is defined as

$$\mathbf{m} = \mathbf{Q} - \mathbf{P} \tag{0.1}$$

The desired vector is

$$\begin{pmatrix} -1 \\ -2 \\ -4 \end{pmatrix} - \begin{pmatrix} 2 \\ 3 \\ 0 \end{pmatrix} = \begin{pmatrix} -3 \\ -5 \\ -4 \end{pmatrix} \tag{0.2}$$

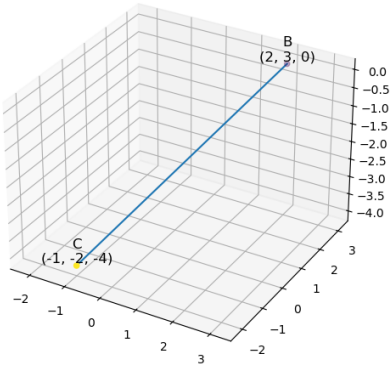

Fig. 0.1: Vector joining P and Q