

Questions for MACE-11010 Engineering Mechanics

Vector operations

Two vectors in Cartesian coordinate system,

$$\begin{aligned} \mathbf{A} &= (1, 1, 0) \\ \mathbf{B} &= (-1, 1, 0) \end{aligned} \quad (1)$$

Answer the following questions:

$$\mathbf{A} + \mathbf{B} = ? \quad (2)$$

$$\mathbf{A} - \mathbf{B} = ? \quad (3)$$

$$2\mathbf{A} + 3\mathbf{B} = ? \quad (4)$$

$$\mathbf{A} \cdot \mathbf{B} = ? \quad (5)$$

$$\mathbf{A} \times \mathbf{B} = ? \quad (6)$$