

Q.4 If possible, find the sum of the matrices A and B, where $A = \begin{bmatrix} \sqrt{3} & 1 \\ 2 & 3 \end{bmatrix}_{2 \times 2}$ and

$$\begin{bmatrix} x & y & z \\ a & b & 6 \end{bmatrix}_{2 \times 3}$$

Soln. We have, $A = \begin{bmatrix} \sqrt{3} & 1 \\ 2 & 3 \end{bmatrix}_{2 \times 2}$ and $B = \begin{bmatrix} x & y & z \\ a & b & 6 \end{bmatrix}_{2 \times 3}$

Here, A and B are of different orders. Two matrices A and B are conformable for addition only if order of both the matrices A and B is same. Hence, the sum of matrices A and B is not possible.