

Answer on Question #41200 – Math – Linear Algebra:

Let $A = \begin{pmatrix} 2 & 0 \\ 0 & 3 \end{pmatrix}$, $B = \begin{pmatrix} 7 & 0 \\ 0 & 11 \end{pmatrix}$. Find AB .

Solution.

$$AB = \begin{pmatrix} 2 & 0 \\ 0 & 3 \end{pmatrix} \begin{pmatrix} 7 & 0 \\ 0 & 11 \end{pmatrix} = \begin{pmatrix} 2 \cdot 7 + 0 \cdot 0 & 2 \cdot 0 + 0 \cdot 11 \\ 0 \cdot 7 + 3 \cdot 0 & 0 \cdot 0 + 3 \cdot 11 \end{pmatrix} = \begin{pmatrix} 14 & 0 \\ 0 & 33 \end{pmatrix}.$$

Answer.

$$\begin{pmatrix} 14 & 0 \\ 0 & 33 \end{pmatrix}.$$