

Matrices lesson 4 - multiplying a matrix by a matrix

Magic Monk Tutorials

1 Given the following matrices, decide if each of the multiplications are possible. If so, calculate them.:

$$A = \begin{pmatrix} 1 & 3 \\ 2 & 3 \\ 3 & -1 \end{pmatrix}, B = \begin{pmatrix} 4 & 2 \\ 5 & 1 \end{pmatrix}, C = \begin{pmatrix} 2 & 5 & 2 \\ 4 & -3 & 3 \\ 2 & 1 & 1 \end{pmatrix}, D = \begin{pmatrix} 3 & -2 & 7 \\ 8 & 1 & 2 \end{pmatrix}, E = \begin{pmatrix} 3 \\ 8 \end{pmatrix},$$

$$F = \begin{pmatrix} 2 & -3 \end{pmatrix}, G = \begin{pmatrix} 2 & 1 \\ -3 & 4 \end{pmatrix}, H = \begin{pmatrix} 1 & -2 & 1 \\ 2 & 4 & -4 \\ -3 & 5 & 2 \end{pmatrix}$$

1.1 $A \cdot B$

1.2 $B \cdot A$

1.3 $B \cdot D$

1.4 $D \cdot B$

1.5 $E \cdot F$

1.6 $F \cdot F$

1.7 $B \cdot G$

1.8 $G \cdot B$

1.9 $H \cdot D$

1.10 $C \cdot H$