

Matrices lesson 6 - inverse of a matrix

Magic Monk Tutorials

1 Verify that the matrix B is the inverse of A.

$$A = \begin{pmatrix} 3 & 2 \\ 7 & 5 \end{pmatrix}, B = \begin{pmatrix} 5 & -2 \\ -7 & 3 \end{pmatrix}$$

2 Calculate the inverses of the following matrices:

2.1 $\begin{pmatrix} 2 & 1 \\ 7 & 4 \end{pmatrix}$

2.2 $\begin{pmatrix} 1 & 1 \\ 3 & 4 \end{pmatrix}$

2.3 $\begin{pmatrix} 5 & 3 \\ 3 & 3 \end{pmatrix}$

3 Can you calculate the inverse of the following matrix? Why or why not?

$$\begin{pmatrix} 3 & 2 \\ 6 & 4 \end{pmatrix}$$

4 Verify that the matrix B is the inverse of A.

$$A = \begin{pmatrix} 1 & 2 & 2 \\ 2 & 5 & 4 \\ 1 & 2 & 3 \end{pmatrix}, B = \begin{pmatrix} 7 & -2 & -2 \\ -2 & 1 & 0 \\ -1 & 0 & 1 \end{pmatrix}$$