

Question 4

Matrix M contains the number of sales of three different types of toys at a toy store over a three-week period. Each column contains data for a single store – the number of items sold for ‘Debutante doll’, ‘Koala tennis pro’ and ‘Captain Power’ in columns one to three, respectively. Rows one to three correspond to weeks one to three, respectively.

To calculate the total value of sales for each week, it would be necessary to multiply by matrix N , where matrix N would be a

- A. column vector with the prices of each item, forming the product MN .
- B. row vector with the prices of each item, forming the product MN .
- C. column vector with the prices of each item, forming the product NM .
- D. row vector with the prices of each item, forming the product NM .
- E. 3×3 , with each store forming a row, in the form MN .

Question 5

The set of simultaneous equations

$$2x + 3y = 16$$

$$3x - 5y = 2$$

can be solved by calculating the matrix product AB , where A and B are, respectively,

- A. $\begin{bmatrix} 2 & 3 \\ 3 & -5 \end{bmatrix}$ and $\begin{bmatrix} 16 \\ 2 \end{bmatrix}$
- B. $\begin{bmatrix} -5 & -3 \\ -3 & 2 \end{bmatrix}$ and $\begin{bmatrix} 16 \\ 2 \end{bmatrix}$
- C. $\frac{1}{19} \begin{bmatrix} -5 & -3 \\ -3 & 2 \end{bmatrix}$ and $\begin{bmatrix} 16 \\ 2 \end{bmatrix}$
- D. $\begin{bmatrix} 2 & 3 \\ 3 & -5 \end{bmatrix}$ and $\begin{bmatrix} 1/16 \\ 1/2 \end{bmatrix}$
- E. $\begin{bmatrix} -5 & -3 \\ -3 & 2 \end{bmatrix}$ and $\frac{-1}{19} \begin{bmatrix} 16 \\ 2 \end{bmatrix}$