**Apply properties of matrix transposes**

- 1 Which matrix is the transpose of this matrix?

$$\begin{bmatrix} -7 & 0 \\ 1 & 6 \end{bmatrix}$$

A

$$\begin{bmatrix} -7 & 1 \\ 0 & 3 \end{bmatrix}$$

B

$$\begin{bmatrix} -7 & 1 \\ -3 & 6 \end{bmatrix}$$

C

$$\begin{bmatrix} -7 & 1 \\ 0 & 4 \end{bmatrix}$$

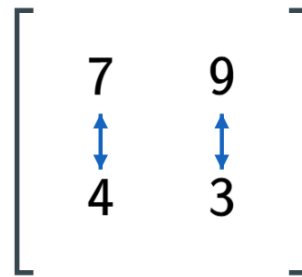
D

$$\begin{bmatrix} -7 & 1 \\ 0 & 6 \end{bmatrix}$$

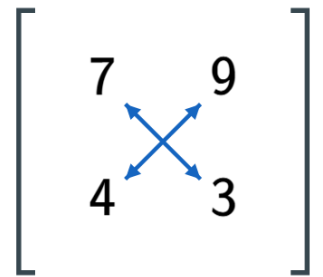
- 2 Which diagram shows how the values move to form the transpose?

$$\begin{bmatrix} 7 & 9 \\ 4 & 3 \end{bmatrix}$$

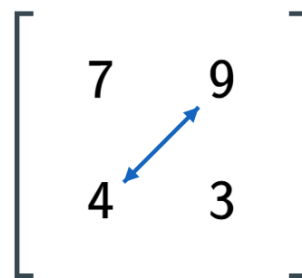
A



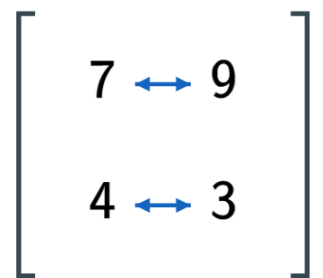
B



C



D



- 3 What does this matrix operation produce?

$$\text{adj}(A)$$

A the transpose of the cofactor matrix

B a single number that describes a square matrix and shows whether it has an inverse

C the matrix that multiplies with A to give the identity matrix

D the matrix where each entry is replaced by the determinant of its minor matrix

E the matrix formed by swapping the rows and columns of A

**Apply properties of matrix transposes**

- 4 Which matrix is the transpose of this matrix?

$$\begin{bmatrix} -2 & 2 & -9 \\ 0 & -5 & 9 \\ 2 & 4 & -6 \end{bmatrix}$$

A

$$\begin{bmatrix} -2 & 0 & 2 \\ 2 & -3 & 4 \\ -9 & 9 & -6 \end{bmatrix}$$

B

$$\begin{bmatrix} -2 & 0 & 1 \\ 2 & -5 & 4 \\ -9 & 9 & -8 \end{bmatrix}$$

C

$$\begin{bmatrix} -2 & 0 & 2 \\ 2 & -5 & 4 \\ -9 & 9 & -6 \end{bmatrix}$$

D

$$\begin{bmatrix} -2 & 0 & 2 \\ 2 & -5 & 4 \\ -9 & 9 & -9 \end{bmatrix}$$

- 5 Which matrix is the transpose of this matrix?

$$\begin{bmatrix} 0 & -6 & 9 \\ -5 & -7 & -1 \\ -9 & 4 & 5 \end{bmatrix}$$

A

$$\begin{bmatrix} -3 & -5 & -9 \\ -6 & -7 & 4 \\ 9 & -1 & 5 \end{bmatrix}$$

B

$$\begin{bmatrix} 0 & -5 & -9 \\ -6 & -5 & 4 \\ 9 & 0 & 5 \end{bmatrix}$$

C

$$\begin{bmatrix} 0 & -5 & -9 \\ -6 & -7 & 4 \\ 9 & -1 & 5 \end{bmatrix}$$

D

$$\begin{bmatrix} 0 & -5 & -11 \\ -6 & -7 & 7 \\ 9 & -1 & 5 \end{bmatrix}$$

- 6 Which diagram shows how the values move to form the transpose?

$$\begin{bmatrix} 5 & 8 & 1 \\ 3 & 9 & 7 \\ 6 & 2 & 4 \end{bmatrix}$$

A

$$\begin{bmatrix} 5 & 8 & 1 \\ 3 & 9 & 7 \\ 6 & 2 & 4 \end{bmatrix}$$

B

$$\begin{bmatrix} 5 & 8 & 1 \\ 3 & 9 & 7 \\ 6 & 2 & 4 \end{bmatrix}$$

C

$$\begin{bmatrix} 5 & 8 & 1 \\ 3 & 9 & 7 \\ 6 & 2 & 4 \end{bmatrix}$$

D

$$\begin{bmatrix} 5 & 8 & 1 \\ 3 & 9 & 7 \\ 6 & 2 & 4 \end{bmatrix}$$