IGCSE – Matrices Paper 2 - 1

May 02 Paper 2

19

$$\mathbf{A} = \begin{pmatrix} 2 & -3 \\ -2 & 5 \end{pmatrix}, \qquad \mathbf{B} = \begin{pmatrix} 4 & 3x \\ 0 & -1 \end{pmatrix}, \qquad \mathbf{C} = \begin{pmatrix} 10 & -15 \\ -2 & 3 \end{pmatrix}.$$

(a) $\mathbf{A} + 2\mathbf{B} = \mathbf{C}$.

(i) Write down an equation in x. *Answer (a)*(i) ..... [1]

(ii) Find the value of x.

Answer (a)(ii) $x =$ ..... [1]

(b) Explain why **C** does not have an inverse.

Answer (b) .....[1]

(c) Find $\mathbf{A}^{-1}$, the inverse of **A**.

Answer (c) $\begin{pmatrix} & \\ & \end{pmatrix}$ [2]

Oct 02 Paper 2

21 $\mathbf{A} = \begin{pmatrix} 2 & -1 \\ 1 & 1 \end{pmatrix}$.

(a) Find the 2×2 matrix **P**, such that $\mathbf{A} + \mathbf{P} = \begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix}$,

Answer (a) $\mathbf{P} = \begin{pmatrix} & \\ & \end{pmatrix}$ [2]

(b) Find the 2×2 matrix **Q**, such that $\mathbf{AQ} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$.

Answer (b) $\mathbf{Q} = \begin{pmatrix} & \\ & \end{pmatrix}$ [3]