

27

$$\mathbf{A} = \begin{pmatrix} 3 & -1 \\ 2 & -2 \end{pmatrix}$$

- (a) Given that the inverse of matrix \mathbf{A} is $\frac{1}{a} \begin{pmatrix} 2 & -1 \\ 2 & -3 \end{pmatrix}$

find the value of a .

$$a = \dots\dots\dots (2)$$

- (b) Hence find the matrix \mathbf{B} such that $\mathbf{ABA}^{-1} = \begin{pmatrix} 9 & -11 \\ 8 & -11 \end{pmatrix}$

$$\begin{pmatrix} & \\ & \end{pmatrix} (5)$$

(Total for Question 27 is 7 marks)

TOTAL FOR PAPER IS 100 MARKS

