

Subject:

## Session 9 Problems

Year.

Month.

Date.

( )

$$1 \text{ (i)} \begin{pmatrix} 1 & 3 \\ 4 & 5 \end{pmatrix} \begin{pmatrix} 1 & 3 \\ 4 & 5 \end{pmatrix} = \begin{pmatrix} 13 & 18 \\ 24 & 37 \end{pmatrix}$$

$$\text{(ii)} \begin{pmatrix} 1 & 3 \\ 4 & 5 \end{pmatrix} \begin{pmatrix} 1 & 1 & 1 \\ 4 & 5 & 6 \end{pmatrix} = \begin{pmatrix} 13 & 16 & 19 \\ 24 & 29 & 34 \end{pmatrix}$$

$$\text{(iii)} \cdot \times$$

$$\text{(iv)} \begin{pmatrix} 1 & 3 \\ 4 & 5 \end{pmatrix} \begin{pmatrix} 5 \\ 3 \end{pmatrix} = \begin{pmatrix} 14 \\ 35 \end{pmatrix}$$

$$\text{(v)} D \cdot A = \begin{pmatrix} 3 & 0 \\ 0 & 3 \end{pmatrix} \begin{pmatrix} 1 & 3 \\ 4 & 5 \end{pmatrix} = \begin{pmatrix} 3 & 9 \\ 12 & 15 \end{pmatrix}$$

$$\text{(vi)} \begin{pmatrix} 1 & 4 \\ 1 & 5 \\ 1 & 6 \end{pmatrix} \begin{pmatrix} 5 \\ 3 \end{pmatrix} = \begin{pmatrix} 17 \\ 20 \\ 23 \end{pmatrix}$$

$$\text{(vii)} \cdot \times$$

$$\text{(viii)} A + D = \begin{pmatrix} 4 & 3 \\ 4 & 8 \end{pmatrix}$$

$$2 \quad B = \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix}$$

$$z = \begin{pmatrix} 2 \\ 1 \\ 3 \end{pmatrix}$$

$$3 \begin{pmatrix} 2 & 3 & 5 \\ 0 & 2 & 1 \\ 1 & -2 & 0 \end{pmatrix} \begin{pmatrix} 9 \\ 4 \\ 2 \end{pmatrix}$$