.　　　　W

Q.1

$$W = \{v \in V^3 | 3v_1 - 2v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} -1 \\ -2 \\ -1 \end{pmatrix}, \begin{pmatrix} 1 \\ 1 \\ -1 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 0 \\ 1 \\ 2 \end{pmatrix}, \begin{pmatrix} -1 \\ -1 \\ 1 \end{pmatrix} >$$

Q.2

$$W = \{v \in V^3 | 3v_1 - 3v_2 + 3v_3 = 0\}$$

$$E = < \begin{pmatrix} -1 \\ 2 \\ 3 \end{pmatrix}, \begin{pmatrix} 1 \\ -1 \\ -2 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 1 \\ -1 \\ -2 \end{pmatrix}, \begin{pmatrix} -2 \\ 3 \\ 5 \end{pmatrix} >$$

Q.3

$$W = \{v \in V^3 | -2v_1 - v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} -1 \\ 0 \\ -2 \end{pmatrix}, \begin{pmatrix} 0 \\ 1 \\ 1 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 0 \\ 1 \\ 1 \end{pmatrix}, \begin{pmatrix} -1 \\ 0 \\ -2 \end{pmatrix} >$$

Q.4

$$W = \{v \in V^3 | -2v_1 - v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} -3 \\ -1 \\ -7 \end{pmatrix}, \begin{pmatrix} 2 \\ 1 \\ 5 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 5 \\ 2 \\ 12 \end{pmatrix}, \begin{pmatrix} 2 \\ 1 \\ 5 \end{pmatrix} >$$

Q.5

$$W = \{v \in V^3 | -2v_1 - v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} 3 \\ 1 \\ 7 \end{pmatrix}, \begin{pmatrix} 2 \\ 1 \\ 5 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 4 \\ 1 \\ 9 \end{pmatrix}, \begin{pmatrix} -1 \\ 0 \\ -2 \end{pmatrix} >$$

Q.6

$$W = \{v \in V^3 | 3v_1 - 3v_2 + 3v_3 = 0\}$$

$$E = < \begin{pmatrix} 1 \\ 0 \\ -1 \end{pmatrix}, \begin{pmatrix} -2 \\ 1 \\ 3 \end{pmatrix} >$$

$$F = < \begin{pmatrix} -1 \\ 2 \\ 3 \end{pmatrix}, \begin{pmatrix} 0 \\ 1 \\ 1 \end{pmatrix} >$$

Q.7

$$W = \{v \in V^3 | -v_1 + v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} -1 \\ 0 \\ -1 \end{pmatrix}, \begin{pmatrix} 1 \\ -1 \\ 2 \end{pmatrix} >$$

$$F = < \begin{pmatrix} -1 \\ 3 \\ -4 \end{pmatrix}, \begin{pmatrix} -1 \\ 2 \\ -3 \end{pmatrix} >$$

Q.8

$$W = \{v \in V^3 | 3v_1 - v_2 + v_3 = 0\}$$

$$E = < \begin{pmatrix} 1 \\ 0 \\ -3 \end{pmatrix}, \begin{pmatrix} 1 \\ -1 \\ -4 \end{pmatrix} >$$

$$F = < \begin{pmatrix} 2 \\ -1 \\ -7 \end{pmatrix}, \begin{pmatrix} 7 \\ -3 \\ -24 \end{pmatrix} >$$

A.1

$$\begin{pmatrix} -1 & 0 \\ -1 & -1 \end{pmatrix}$$

A.2

$$\begin{pmatrix} 0 & 1 \\ 1 & -1 \end{pmatrix}$$

A.3

$$\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$$

A.4

$$\begin{pmatrix} -1 & 0 \\ 1 & 1 \end{pmatrix}$$

A.5

$$\begin{pmatrix} 2 & -1 \\ -1 & 1 \end{pmatrix}$$

A.6

$$\begin{pmatrix} 3 & 2 \\ 2 & 1 \end{pmatrix}$$

A.7

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

A.8

$$\begin{pmatrix} 1 & 4 \\ 1 & 3 \end{pmatrix}$$