In[37]:= **Clear [B]**

In[38]:= **B = {{1, -1, 2, -1, -8}, {2, -2, 3, -3, -20}, {1, 1, 1, 0, -2}, {1, -1, 4, -3, 4}};**
B // MatrixForm

Out[38]//MatrixForm=
$$\begin{pmatrix} 1 & -1 & 2 & -1 & -8 \\ 2 & -2 & 3 & -3 & -20 \\ 1 & 1 & 1 & 0 & -2 \\ 1 & -1 & 4 & -3 & 4 \end{pmatrix}$$

In[39]:= **B[[2]] = -2 * B[[1]] + B[[2]]; B // MatrixForm**

Out[39]//MatrixForm=
$$\begin{pmatrix} 1 & -1 & 2 & -1 & -8 \\ 0 & 0 & -1 & -1 & -4 \\ 1 & 1 & 1 & 0 & -2 \\ 1 & -1 & 4 & -3 & 4 \end{pmatrix}$$

In[40]:= **B[[3]] = -1 * B[[1]] + B[[3]]; B // MatrixForm**

Out[40]//MatrixForm=
$$\begin{pmatrix} 1 & -1 & 2 & -1 & -8 \\ 0 & 0 & -1 & -1 & -4 \\ 0 & 2 & -1 & 1 & 6 \\ 1 & -1 & 4 & -3 & 4 \end{pmatrix}$$

In[41]:= **B[[4]] = -1 * B[[1]] + B[[4]]; B // MatrixForm**

Out[41]//MatrixForm=
$$\begin{pmatrix} 1 & -1 & 2 & -1 & -8 \\ 0 & 0 & -1 & -1 & -4 \\ 0 & 2 & -1 & 1 & 6 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[42]:= **B[[3]] = 1 / 2 * B[[3]]; B // MatrixForm**

Out[42]//MatrixForm=
$$\begin{pmatrix} 1 & -1 & 2 & -1 & -8 \\ 0 & 0 & -1 & -1 & -4 \\ 0 & 1 & -\frac{1}{2} & \frac{1}{2} & 3 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[43]:= **B[[1]] = B[[3]] + B[[1]]; B // MatrixForm**

Out[43]//MatrixForm=
$$\begin{pmatrix} 1 & 0 & \frac{3}{2} & -\frac{1}{2} & -5 \\ 0 & 0 & -1 & -1 & -4 \\ 0 & 1 & -\frac{1}{2} & \frac{1}{2} & 3 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[44]:= **B[[2]] = -1 * B[[2]]; B // MatrixForm**

Out[44]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & \frac{3}{2} & -\frac{1}{2} & -5 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & -\frac{1}{2} & \frac{1}{2} & 3 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[45]:= **B[[1]] = -3 / 2 * B[[2]] + B[[1]]; B // MatrixForm**

Out[45]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & -\frac{1}{2} & \frac{1}{2} & 3 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[46]:= **B[[3]] = 1 / 2 * B[[2]] + B[[3]]; B // MatrixForm**

Out[46]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & 0 & 1 & 5 \\ 0 & 0 & 2 & -2 & 12 \end{pmatrix}$$

In[47]:= **B[[4]] = -2 * B[[2]] + B[[4]]; B // MatrixForm**

Out[47]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & 0 & 1 & 5 \\ 0 & 0 & 0 & -4 & 4 \end{pmatrix}$$

In[48]:= **B[[4]] = -1 / 4 * B[[4]]; B // MatrixForm**

Out[48]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & 0 & 1 & 5 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

In[49]:= **B[[3]] = -1 * B[[4]] + B[[3]]; B // MatrixForm**

Out[49]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 1 & 4 \\ 0 & 1 & 0 & 0 & 6 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

In[50]:= **B[[2]] = -1 * B[[4]] + B[[2]]; B // MatrixForm**

Out[50]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & -2 & -11 \\ 0 & 0 & 1 & 0 & 5 \\ 0 & 1 & 0 & 0 & 6 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

In[51]:= **B[[1]] = 2 * B[[4]] + B[[1]]; B // MatrixForm**

Out[51]//MatrixForm=

$$\begin{pmatrix} 1 & 0 & 0 & 0 & -13 \\ 0 & 0 & 1 & 0 & 5 \\ 0 & 1 & 0 & 0 & 6 \\ 0 & 0 & 0 & 1 & -1 \end{pmatrix}$$

maka diperoleh :

x1 = -13

x2 = 6

x3 = 5

x4 = -1