

In [1]:

```
A=matrix([[1,-2,1],[0,2,-8],[-4,5,9]])
show(A)
```

Out[1]:

$$\begin{pmatrix} 1 & -2 & 1 \\ 0 & 2 & -8 \\ -4 & 5 & 9 \end{pmatrix}$$

In [2]:

```
b=vector([0,6,-9]).column()
show(b)
```

Out[2]:

$$\begin{pmatrix} 0 \\ 6 \\ -9 \end{pmatrix}$$

In [3]:

```
Ab=A.augment(b)
show(Ab)
```

Out[3]:

$$\begin{pmatrix} 1 & -2 & 1 & 0 \\ 0 & 2 & -8 & 6 \\ -4 & 5 & 9 & -9 \end{pmatrix}$$

In [4]:

```
show(Ab.rref())
```

Out[4]:

$$\begin{pmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 0 \end{pmatrix}$$

In [0]: