

Directions for Using Maple

> with(linalg); ← This is important. It calls upon the Linear Algebra subprogram needed to access the commands that follow.

> A:=matrix(2,3,[1,2,3,4,5,6]);

$$A:= \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$$

> rref(A);

$$A:= \begin{bmatrix} 1 & 0 & -1 \\ 0 & 1 & 2 \end{bmatrix}$$

> B:=matrix(3,4,[3,4,-2,3,1,5,-2,5,7,14,-8,4]);

$$A:= \begin{bmatrix} 3 & 4 & -2 & 3 \\ 1 & 5 & -2 & 5 \\ 7 & 14 & -8 & 4 \end{bmatrix}$$

> rref(B);

$$B:= \begin{bmatrix} 1 & 0 & 0 & \frac{4}{9} \\ 0 & 1 & 0 & \frac{26}{9} \\ 0 & 0 & 1 & \frac{89}{18} \end{bmatrix}$$

> C:=matrix(3,3,[1,3,4,2,-1,4,3,1,4]);

$$C:= \begin{bmatrix} 1 & 3 & 4 \\ 2 & -1 & 4 \\ 3 & 1 & 4 \end{bmatrix}$$

> rref(C);

$$C:= \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

> E:=matrix(3,5[1,2,3,4,5,2,4,6,-6,-5,4,8,12,16,20]);

$$E:= \begin{bmatrix} 1 & 2 & 3 & 4 & 5 \\ 2 & 4 & 6 & -6 & -5 \\ 4 & 8 & 12 & 16 & 20 \end{bmatrix}$$

> rref(E);

$$E:= \begin{bmatrix} 1 & 2 & 3 & 0 & \frac{5}{7} \\ 0 & 0 & 0 & 1 & \frac{15}{14} \\ 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$