```
with(LinearAlgebra) : with(plots) :
M := Matrix([[a, b], [c, d]]);
```

$$\begin{bmatrix} a & b \\ c & d \end{bmatrix} \tag{1}$$

```
M^(-1);
```

$$\begin{bmatrix} \frac{d}{a\,d-b\,c} & -\frac{b}{a\,d-b\,c} \\ -\frac{c}{a\,d-b\,c} & \frac{a}{a\,d-b\,c} \end{bmatrix} \tag{2}$$

```
N := Matrix([[a, b, c], [d, e, f], [g, h, i]]);
```

$$\begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix} \tag{3}$$

```
MatrixInverse(N);
```

$$\left[\frac{e\,i-f\,h}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, -\frac{b\,i-c\,h}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, \frac{b\,f-c\,e}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}\right], \left[-\frac{-g\,f+d\,i}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, \frac{-g\,c+a\,i}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, -\frac{-d\,c+a\,f}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}\right], \left[-\frac{g\,e-d\,h}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, -\frac{-g\,b+a\,h}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}, \frac{-d\,b+a\,e}{g\,b\,f-g\,c\,e-d\,b\,i+d\,c\,h+a\,e\,i-a\,f\,h}\right] \tag{4}$$

```
P := Matrix([[1, 2, 0, 6], [5, 0, 0, 4], [6, 1, 2, 3], [9, 0, 0, 2]]);
```

$$\begin{bmatrix} 1 & 2 & 0 & 6 \\ 5 & 0 & 0 & 4 \\ 6 & 1 & 2 & 3 \\ 9 & 0 & 0 & 2 \end{bmatrix} \tag{5}$$

```
Determinant(P);
```


$$-144 \tag{6}$$