```
DETERMINANTE = A * E - B * D

DETX = C * E - B * F
DETY = A * F - C * D


Solve[{x^2 + y^2 == 1, x + 3 y == 0}, {x, y}]
```

$$\left\{\left\{x \to -\frac{3}{\sqrt{10}}, y \to \frac{1}{\sqrt{10}}\right\}, \left\{x \to \frac{3}{\sqrt{10}}, y \to -\frac{1}{\sqrt{10}}\right\}\right\}$$

```
Solve[{2 x + 4 y == 5, 6 x + 3 y == 9}, {x, y}]
```

$$\left\{\left\{x \to \frac{7}{6}, y \to \frac{2}{3}\right\}\right\}$$

```
Solve[{5.34 x + 4.389 y == 5.25, 6.31 x + 3.2 y == 9.1}, {x, y}]
```

$$\{\{x \to 2.18165, y \to -1.4582\}\}$$

```
Solve[{A * x + B * y == C, D * x + E * y == F}, {x, y}]

Solve[{2 * x + 4 * y == 4, 1 * x + 2 * y == 7}, {x, y}]
```

$$\{\}$$

```
Solve[{2 * x + 4 * y == 4, 1 * x + 4 * y == 7}, {x, y}]
```

$$\left\{\left\{x \to -3, y \to \frac{5}{2}\right\}\right\}$$

```
Solve[{2 * x + 4 * y == 4, 1 * x + 2 * y == 2}, {x, y}]
```

Solve: Equations may not give solutions for all "solve" variables.

$$\left\{\left\{y \to 1 - \frac{x}{2}\right\}\right\}$$

```
Solve[{A * x + B * y + C * z == D, E * x + F * y + G * z == H, I * x + J * y + K * z == L}, {x, y, z}]

In[2]:= N[Solve[{1 * x + 2 * y + 3 * z == 4,
    34 * x + 45 * y + 23 * z == 11, 3 * x + 45 * y + 23 * z == 51}, {x, y, z}], 8]
```

Out[2]= $\{\{x \to -1.2903226, y \to 0.48242117, z \to 1.4418267\}\}$

```
In[4]:= N[Solve[{3 * x + 2 * y - 1 * z == 1,
    2 * x - 2 * y + 4 * z == -2, -1 * x + 0.5 * y - 1 * z == 0}, {x, y, z}], 8]
```

Out[4]= $\{\{x \to 1., y \to -2., z \to -2.\}\}$

```
In[5]:= N[Solve[{3 * x + 2 * y - 1 * z == 1,
    3 * x + 2 * y + -1 * z == 1, -1 * x + 0.5 * y - 1 * z == 0}, {x, y, z}], 8]
```

Solve: Equations may not give solutions for all "solve" variables.

Out[5]= $\{\{y \to 0.666667 - 2.66667\, x, z \to 0.333333 - 2.33333\, x\}\}$

```
In[6]:= N[Solve[{-17 * x + 2 / 3 * y - 1.8759 * z == 1.4589, 2.45 * x - 2.1973 * y + 4.75913 * z == -23,
    -7 * x + 4.561 * y - 38.67 * z == -89}, {x, y, z}], 8]
```

Out[6]= $\{\{x \to 0.213691, y \to 20.9616, z \to 4.7352\}\}$