

Solving a system of equations:

$$\begin{aligned}x_1 + x_2 + x_3 &= 6 \\2x_1 - 1x_2 + 6x_3 &= 4 \\x_1 + 3x_2 + 5x_3 &= 2\end{aligned}$$

Matrix.

```
compute a = {1,1,1;2,-1,6;1,3,5}.
compute y = {6;4;2}.
compute ranka = rank(a).
compute determa = det(a).
compute inva = inv(a).
compute x = inva*y.
print a.
print y.
print ranka.
print determa.
print ina.
print x.

END MATRIX.
```

Run MATRIX procedure:

```
A
 1  1  1
 2 -1  6
 1  3  5

Y
 6
 4
 2

RANKA
 3

DETA
-20

INVA
 1.150000000    .100000000   -.350000000
 .200000000   -.200000000    .200000000
-.350000000    .100000000    .150000000

X
 6.600000000
 .800000000
-1.400000000

----- END MATRIX -----
```