

```
> restart;
```

Output Matrix

```
> Y := Matrix(m, n, symbol=y);
X := Vector(n, symbol=x);
ones := Matrix((n, 1), fill=1) :
```

$$Y := \begin{bmatrix} y_{1,1} & y_{1,2} & y_{1,3} & y_{1,4} & y_{1,5} & y_{1,6} & y_{1,7} & y_{1,8} & y_{1,9} & y_{1,10} & y_{1,11} & y_{1,12} \\ y_{2,1} & y_{2,2} & y_{2,3} & y_{2,4} & y_{2,5} & y_{2,6} & y_{2,7} & y_{2,8} & y_{2,9} & y_{2,10} & y_{2,11} & y_{2,12} \\ y_{3,1} & y_{3,2} & y_{3,3} & y_{3,4} & y_{3,5} & y_{3,6} & y_{3,7} & y_{3,8} & y_{3,9} & y_{3,10} & y_{3,11} & y_{3,12} \\ y_{4,1} & y_{4,2} & y_{4,3} & y_{4,4} & y_{4,5} & y_{4,6} & y_{4,7} & y_{4,8} & y_{4,9} & y_{4,10} & y_{4,11} & y_{4,12} \\ y_{5,1} & y_{5,2} & y_{5,3} & y_{5,4} & y_{5,5} & y_{5,6} & y_{5,7} & y_{5,8} & y_{5,9} & y_{5,10} & y_{5,11} & y_{5,12} \\ y_{6,1} & y_{6,2} & y_{6,3} & y_{6,4} & y_{6,5} & y_{6,6} & y_{6,7} & y_{6,8} & y_{6,9} & y_{6,10} & y_{6,11} & y_{6,12} \\ y_{7,1} & y_{7,2} & y_{7,3} & y_{7,4} & y_{7,5} & y_{7,6} & y_{7,7} & y_{7,8} & y_{7,9} & y_{7,10} & y_{7,11} & y_{7,12} \\ y_{8,1} & y_{8,2} & y_{8,3} & y_{8,4} & y_{8,5} & y_{8,6} & y_{8,7} & y_{8,8} & y_{8,9} & y_{8,10} & y_{8,11} & y_{8,12} \\ y_{9,1} & y_{9,2} & y_{9,3} & y_{9,4} & y_{9,5} & y_{9,6} & y_{9,7} & y_{9,8} & y_{9,9} & y_{9,10} & y_{9,11} & y_{9,12} \\ y_{10,1} & y_{10,2} & y_{10,3} & y_{10,4} & y_{10,5} & y_{10,6} & y_{10,7} & y_{10,8} & y_{10,9} & y_{10,10} & y_{10,11} & y_{10,12} \\ y_{11,1} & y_{11,2} & y_{11,3} & y_{11,4} & y_{11,5} & y_{11,6} & y_{11,7} & y_{11,8} & y_{11,9} & y_{11,10} & y_{11,11} & y_{11,12} \\ y_{12,1} & y_{12,2} & y_{12,3} & y_{12,4} & y_{12,5} & y_{12,6} & y_{12,7} & y_{12,8} & y_{12,9} & y_{12,10} & y_{12,11} & y_{12,12} \end{bmatrix} \quad (1)$$

$$X := \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \\ x_6 \\ x_7 \\ x_8 \\ x_9 \\ x_{10} \\ x_{11} \\ x_{12} \end{bmatrix} \quad (2)$$

```
> labels := convert~([n], symbol) :
'z' = Sol[1],
'Y' = (eval(Y, Sol[2]));
```

$$z = 3145., Y = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

(3)

```
> labels := convert~([n], symbol);
'X' = (eval(X, Sol[2]));
```

labels := [12]

$$X = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 1 \\ 0 \\ 1 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$

(4)