

```
(%i1)      u: matrix(
           [0.34,-1.99,2/7,0],
           [0,1.1,2.3,-3.57],
           [0,0,3.2,33],
           [0,0,0,66.72]
           );
```

$$(u) \quad \begin{bmatrix} 0.34 & -1.99 & \frac{2}{7} & 0 \\ 0 & 1.1 & 2.3 & -3.57 \\ 0 & 0 & 3.2 & 33 \\ 0 & 0 & 0 & 66.72 \end{bmatrix}$$

```
(%i2)      matrix_size(u);
(%o2)      [4,4]

(%i4)      c:%o2;
```

```
(%i5)      x:makelist(1,i,1,c[1]);
(x)        [1,1,1,1]
```

```
(%i6)      [
           1,34,78,-9.42
           ];
```

```
(%o6)      [1,34,78,-9.42]
```

```
(%i8)      b:%o6;
(b)        [1,34,78,-9.42]
```

```
(%i9)      for i:c[1] step -1 thru 1 do x[i]:1/(u[i][i])*(b[i] - sum(u[i][j]*x[j],j,i+1,c[1]));
(%o9)      done
```

```
(%i10)     u.x;
```

$$(%o10) \quad \begin{bmatrix} 1.0 \\ 34.0 \\ 78.000000000000002 \\ -9.42 \end{bmatrix}$$