

Maple Linear System Solver

The College of William and Mary has a university-wide license for MAPLE 11 on college-owned computers.

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[ > restart:
[ > # This file calculates the currents in the Physics 252 Week 2
  course notes.
[ > with(linalg):
  Warning, new definition for norm
  Warning, new definition for trace
[ > A:=matrix([[1,1,-1],[R1,0,R3],[0,R2,R3]]);
      
$$A := \begin{bmatrix} 1 & 1 & -1 \\ R1 & 0 & R3 \\ 0 & R2 & R3 \end{bmatrix}$$

[ > B:=vector([0,V1,V2]);
      
$$B := [0, V1, V2]$$

[ > solution:=linsolve(A,B):
[ > solution[1];
      
$$\frac{R3 V1 - V2 R3 + R2 V1}{R2 R1 + R2 R3 + R1 R3}$$

[ > solution[2];
      
$$\frac{-R3 V1 + R1 V2 + V2 R3}{R2 R1 + R2 R3 + R1 R3}$$

[ > solution[3];
      
$$\frac{R1 V2 + R2 V1}{R2 R1 + R2 R3 + R1 R3}$$

[ >
```