Algorithm: Gauss Elimination Method

- *Read number of equations say n*

// Read equation
- *For* $i = 0$ *to* $(n-1)$ *in steps of* 1 *do*
  - *For* $j = 0$ *to* n *in steps of* 1 *do*
    - *Read* $a[i][j]$

    End for

  End for

// Forward Elimination
- *For* $k = 0$ *to* $(n-2)$ *in steps of* 1 *do*
  - *For* $i = (k+1)$ *to* $(n-1)$ *in steps of* 1 *do*
    - $u = \frac{a[i][k]}{a[k][k]}$
    - *For* $j = k$ *to* n *in steps of* 1 *do*
      - $a[i][j] = a[i][j] - (a[k][j] * u)$

      End for

    End for

  End for

// Backward Substitution
- $x[n-1] = \frac{a[n-1][n]}{a[n-1][n-1]}$
- *For* $i = n-2$ *to* 0 *in steps of* -1 *do*
  - $Sum = 0.0$
  - *For* $j = (i+1)$ *to* $(n-1)$ *in steps of* 1 *do*
    - $Sum = sum = a[i][j] * x[j]$

    End for

  - $x[i] = \frac{a[i][n] - sum}{a[i][i]}$

  End for

END

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