**Algorithm for Gauss Elimination with pivoting**

The argumented matrix A of order n\*(n+1) is stored using a two-dimensional array named o of size n\*(n+1).The solution of the system of linear equations is stored in one-dimensional array named x of size n.

1. Start
2. Read n
3. for i=1 to n by 1 do

for j=1 to (n+1) by 1 do

read: aij

endfor

endfor

1. for k=1 to (n-1) by 1 do

set max = |akk|

set p = k

for m=(k+1) to n by 1 do

if(|amk|>max) then

set max = |amk|

set p = m

endif

endfor

1. if(p!=k) then

for q=k to (n+1) by 1 do

set temp = akq

set akq = apq

set apq = temp

endfor

endif

1. for i=(k+1) to n by 1 do

set temp = aik/akk

for j=k to (n+1) by 1 do

set aij = aij – temp\*akj

endfor

endfor

1. set xn = an(n+1)/ann

for i=(n-1) to 1 by -1 do

set sum = 0

for j=(i+1) to n by 1 do

set sum = sum+aij\*xi

endfor

set xi = (ai(n+1) – sum)/aij

endfor

1. write : “Solution of equations”

for i=1 to n by 1 do

write : xi

endfor

1. Stop