Algorithm:  
**Place(k, i):**

// Returns true if a queen can be placed in kth row and

// ith column. Otherwise it returns false. x[] is a

// global array whose first (k-1) values have been set.

// Abs(r) returns the absolute value of r.

{

for j:= 1 to k-1 do

{

if ((x[j] = i) // Two in the same column

or (Abs(x[j]-i) = Abs(j-k))) // or in the same diagonal

then return false;

}

return true;

}

Algorithm

**NQueens(k, n)** :

/ /Using backtracking, this procedure prints all

// possible placements of n queens on an nxn

// chessboard so that they are nonattacking.

{

for i:=1 to n do

{

if Place(k, i) then

{

x[k] := i;

if (k = n) then write (x[1: n]);

else NQueens(k +1,n);

}

}

}