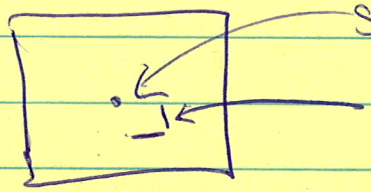
# prog studio 7 Mar 2013

## fun with recursion!

expansion on the maze search example
with some debugging

- check out the code
  (a copy in everyone's repository this time)
- review maze.h contents (same as class, except mazes are dynamically allocated instead of file scope)
- expt.c — three parts in main — comment out two at a time
  - use 'make' to compile
  - first part: bug in create_maze (maze.c)
     ← should look like that
    make, then execute (./expt) to see problem
    fix it! (then commit)
  - second part: can you change mark_found_recurse to reduce # calls to # squares found?
    (if # squares changes, you have broken the code!)

— third part: experiment with reachability as a function of wall density




What fraction of maze can be reached as func of % chance?
look at graph.pdf

Can you predict?

run some experiments yourself

./expt > outputfile

look at "graph" — a gnuplot script
feel free to modify
to execute, "gnuplot graph" (produces graph.ps)

"ps2pdf graph.ps" creates graph.pdf