

### hillclimb.py

Enter a number of cases to test: 1000

Out of 1000 cases, 150 were solved. (15.00%)

Total runtime: 1.41 seconds

Average step count of solved problems: 4.18

Example: Solution 82417536 generated in 5 steps

```
[ ][ ][ ][ ][ ][ ][ ][x]
[ ][x][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][x][ ][ ][ ][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ]
```

## genetic.py

Enter desired number of genetic algorithm solutions: 5

Children generated: 148375

Iteration 1 found a solution: 53847162 (1.21 seconds)

```
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x]
[ ][ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ]
[ ][x][ ][ ][ ][ ][ ][ ]
```

Children generated: 143207

Iteration 2 found a solution: 47526138 (1.26 seconds)

```
[ ][ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][x][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][x]
```

Children generated: 127435

Iteration 3 found a solution: 82531746 (1.08 seconds)

```
[ ][ ][ ][ ][ ][ ][ ][x]
[ ][x][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[ ][ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ]
```

Children generated: 304465

Iteration 4 found a solution: 47531682 (2.53 seconds)

```
[ ][ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ]
[ ][ ][ ][ ][ ][ ][x]
[ ][x][ ][ ][ ][ ][ ][ ]
```

Children generated: 303614

Iteration 5 found a solution: 47526138 (1.89 seconds)

```
[ ][ ][ ][x][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][x][ ]
[ ][ ][ ][ ][x][ ][ ][ ]
[ ][x][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][x][ ][ ]
[x][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][x][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][x]
```

5 solution(s) found in 7.97 seconds.