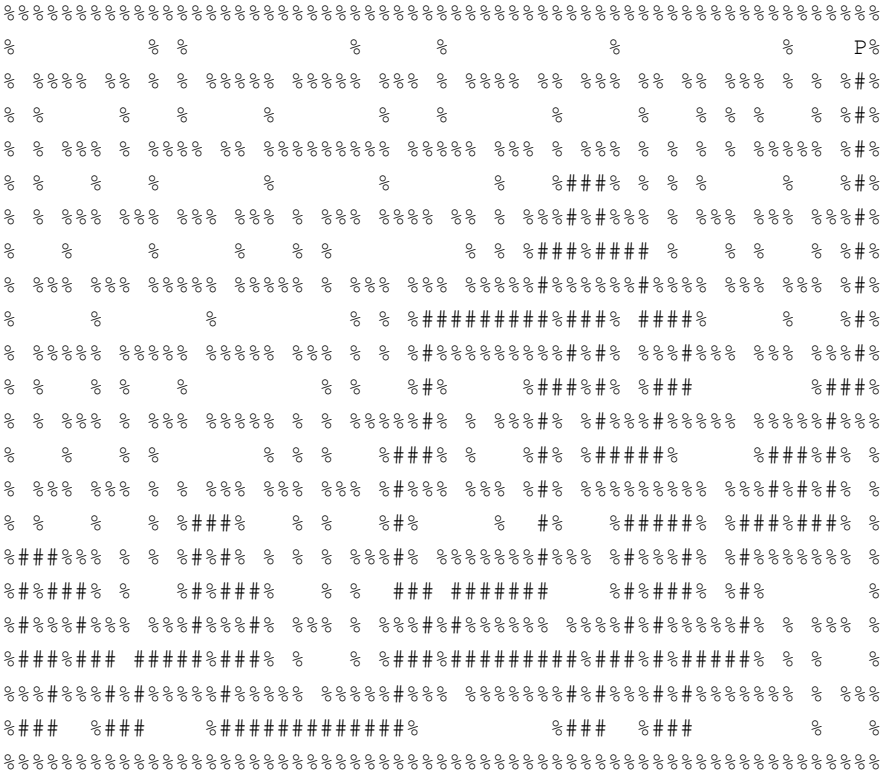
1prize-open with single_dfs:

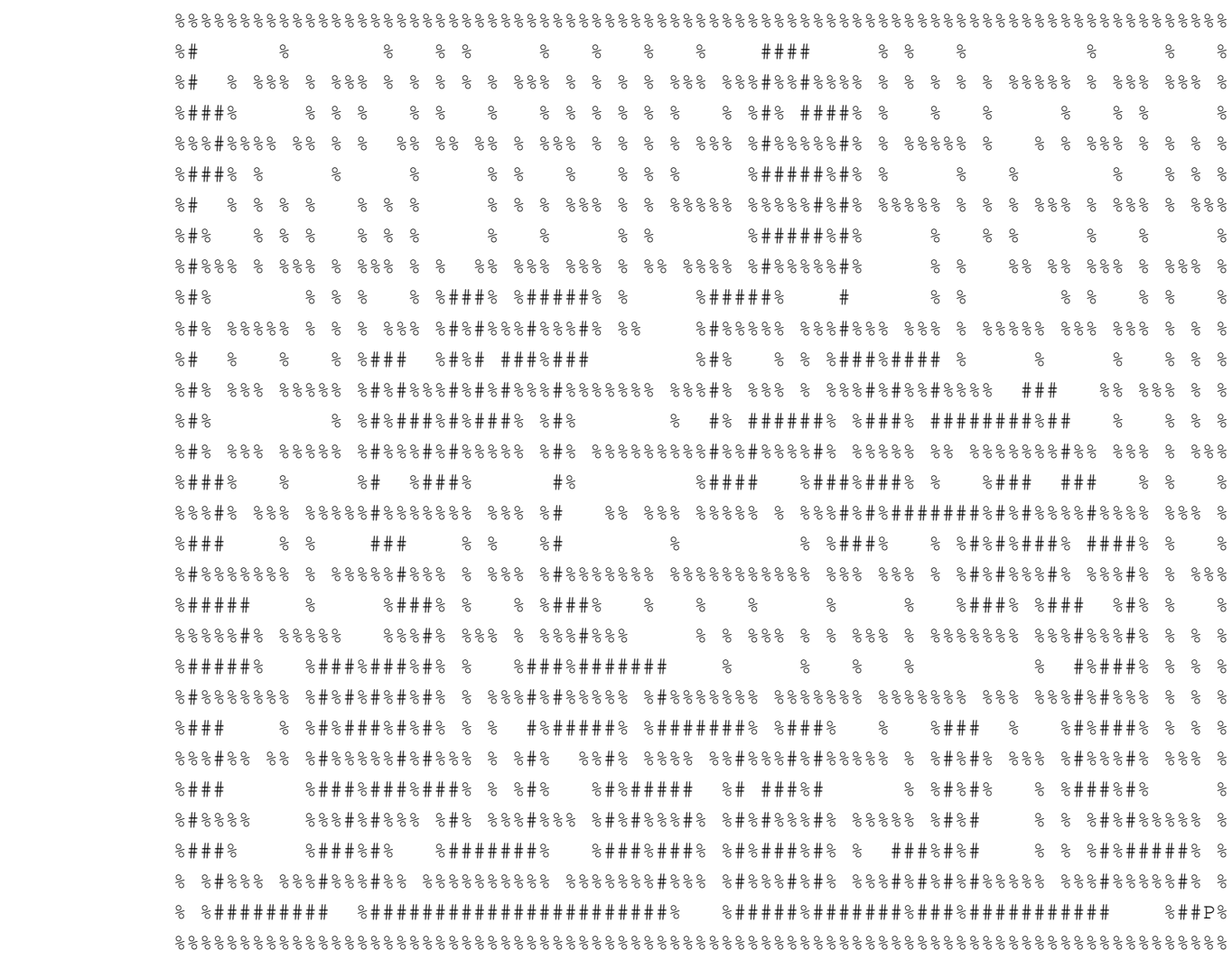
Cost: 59
Nodes expanded: 1178

1prize-medium with single_dfs:



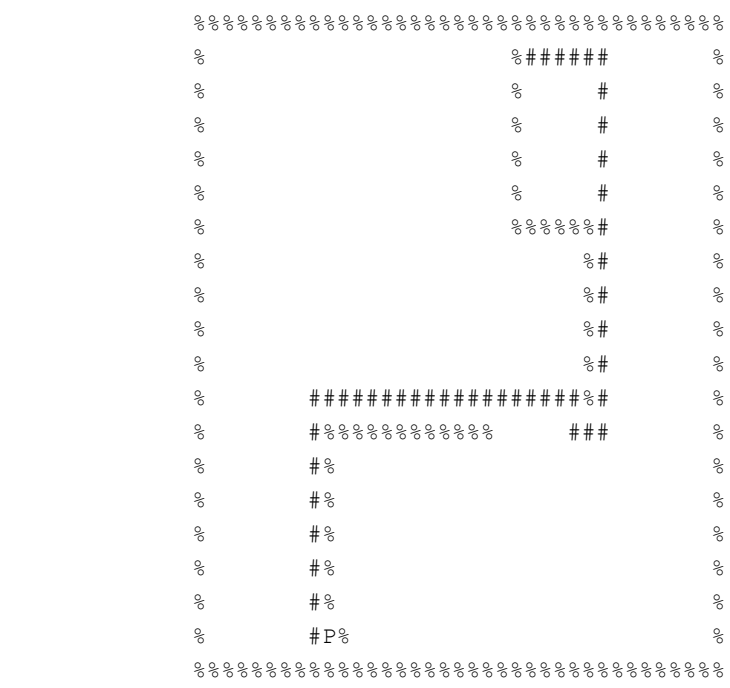
Cost: 204
Nodes expanded: 1121

1prize-large with single_dfs:



Cost: 460
Nodes expanded: 3710

1prize-open with single_bfs:

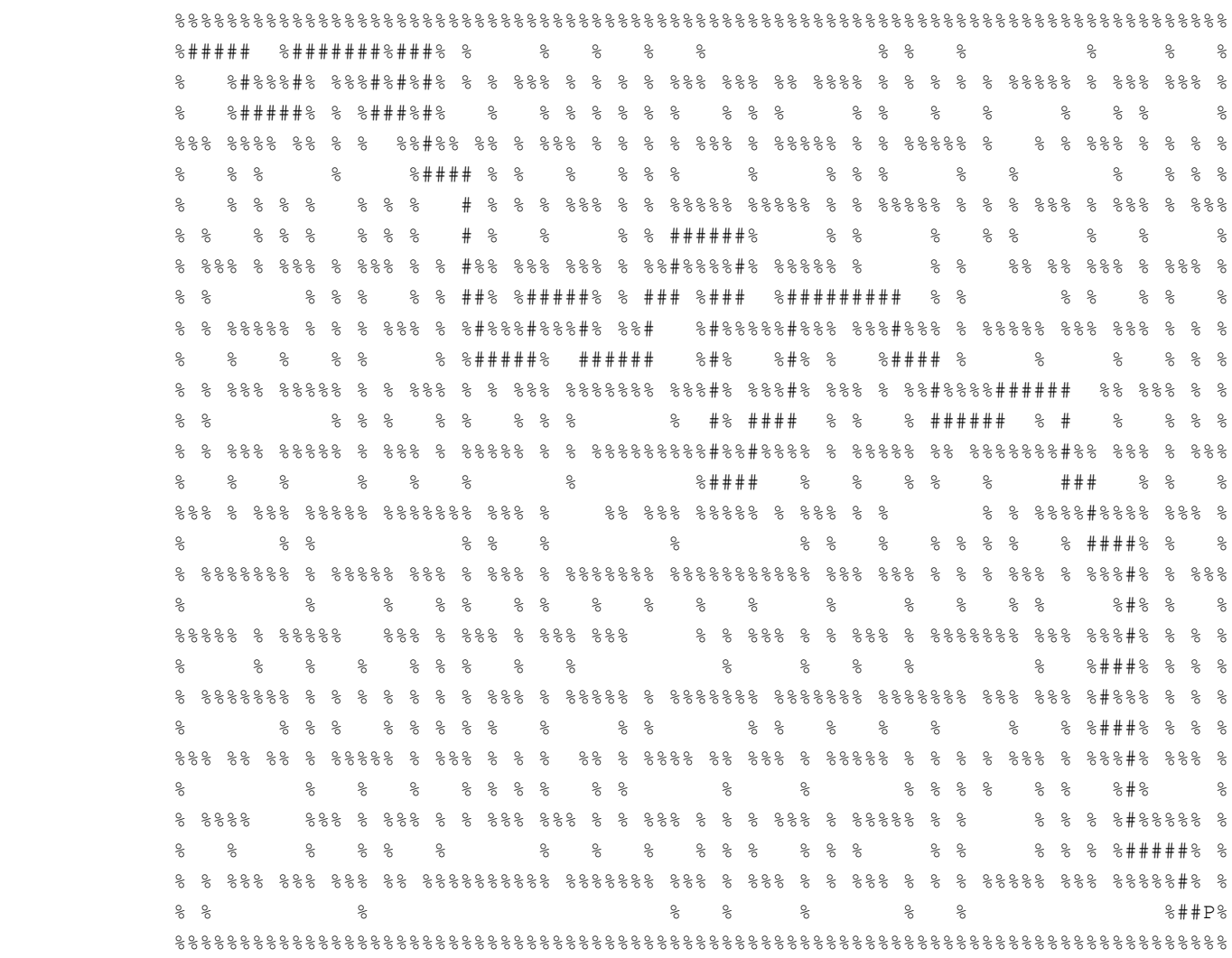


Cost: 45
Nodes expanded: 2018

1prize-medium with single_bfs:

Cost: 94
Nodes expanded: 2410

1prize-large with single_bfs:

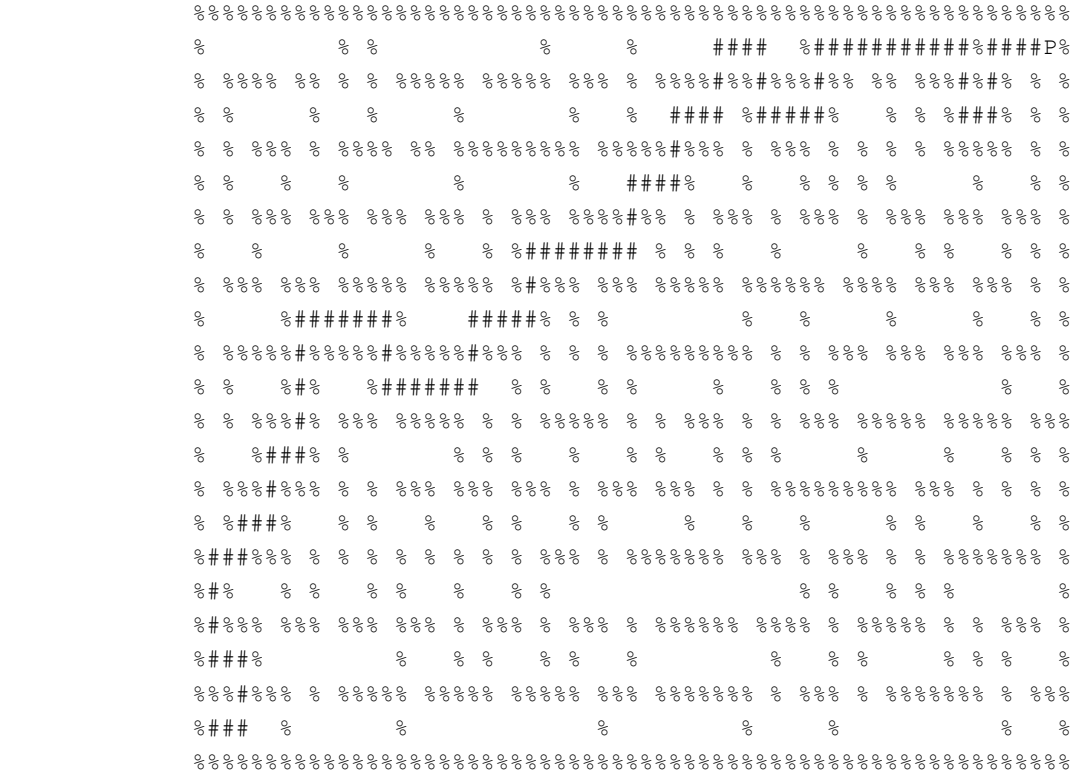


Cost: 148
Nodes expanded: 5018

1prize-open with single_gbfs:

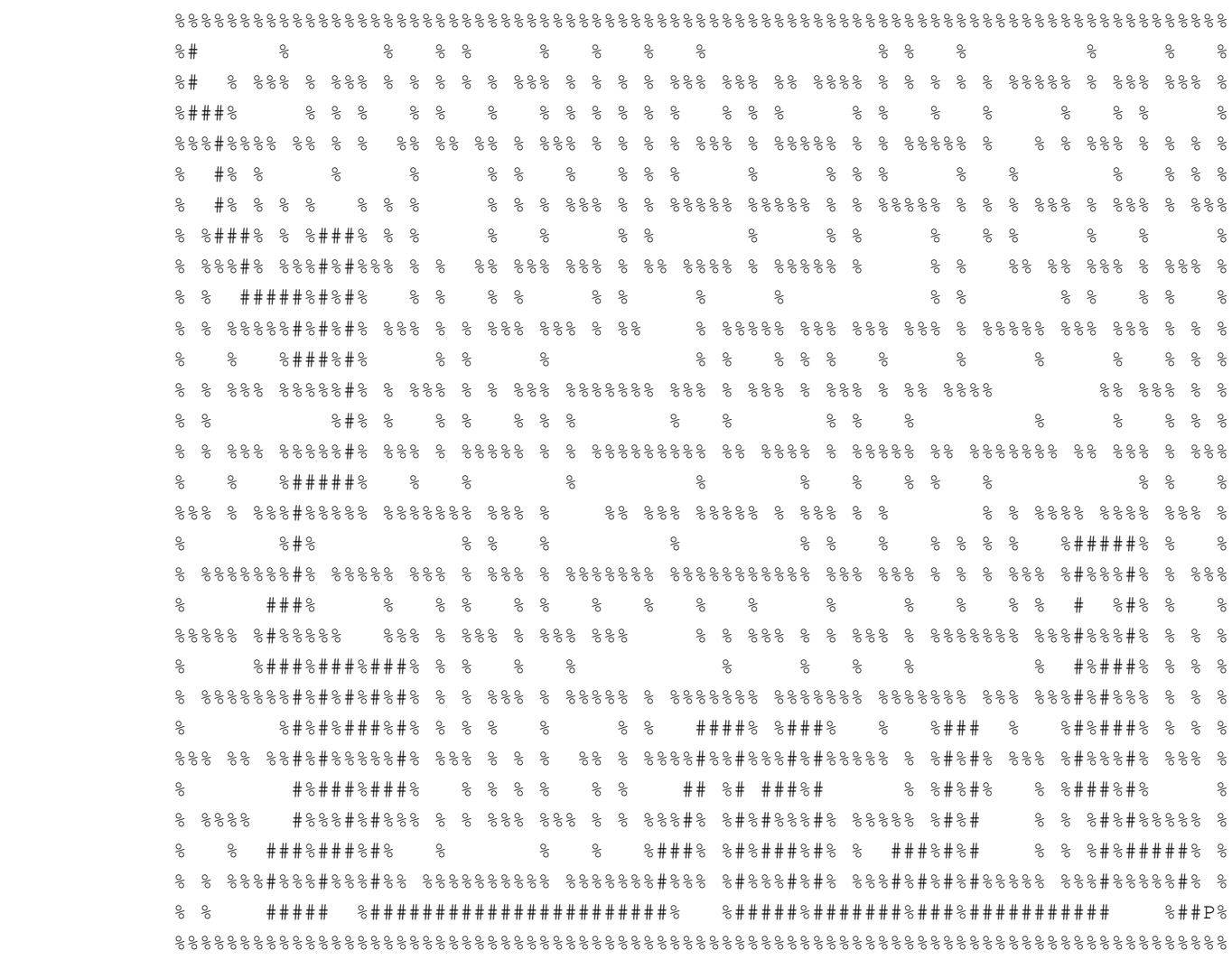
Cost: 45
Nodes expanded: 570

1prize-medium with single_gbfs:



Cost: 94
Nodes expanded: 410

1prize-large with single_gbfs:



Cost: 234
Nodes expanded: 1146

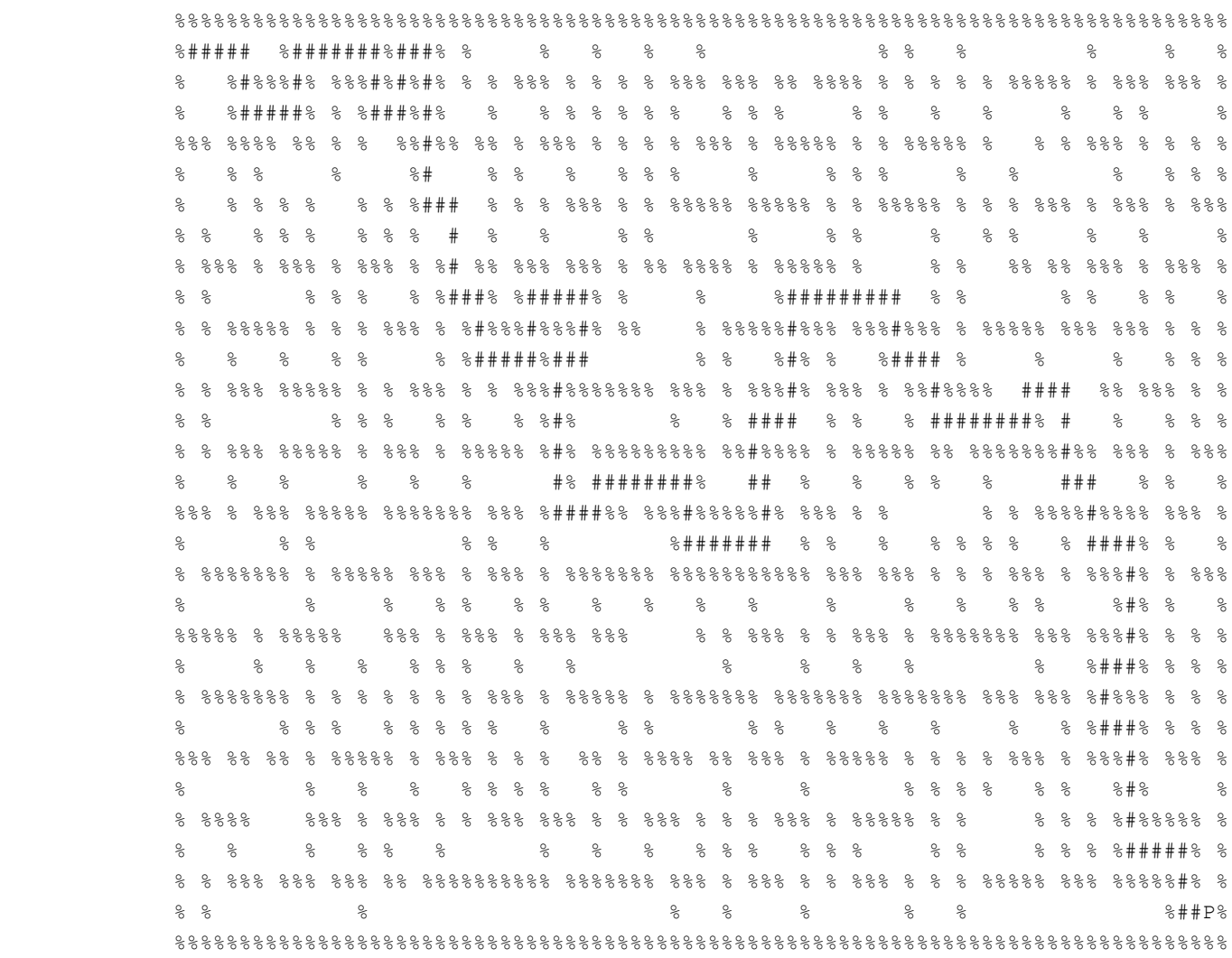
1prize-open with single_astar:

Cost: 45
Nodes expanded: 946

1prize-medium with single_astar:

Cost: 94
Nodes expanded: 1354

1prize-large with single_astar:



Cost: 148

Nodes expanded: 4618

For multi_astar, our heuristic function first calculate all the possible path to collect all the prizes using recursive permutation and for each prize, saves the value that represents the minimum possible path that reaches all other prizes. Now for each transition, the h(n) value is calculated by finding the minimum manhattan distance from the current node to each of the prizes plus their corresponding path distances from the saved values calculated earlier. When a prize is found, the path list is recalculated.

multiprize-micro with multi_astar:

```
%%%%%%%%%%
%3  % %P %
% % 4 5% %
%  % %   %
%2 1    6%
%%%%%%%%%%
Cost: 21
Nodes expanded: 115980
```

The rest of the maze do not have a reasonable run time.