Listing 1: Skipisten

```
#include <iostream>
#include <algorithm>
#include <fstream>
#include <sstream>
#include <iostream>
#include <vector>
#include inits>
#define INFTY std::numeric limits<int>::max()/2
struct Edge{
    int index;
    int tail;
    int head;
    int cost;
    Edge(int a, int b, int c, int i): tail(a), head(b), cost(c), index(i){}
};
bool compareEdge(const Edge e1, const Edge e2)
    return el.index < e2.index;
}
int main(int argc, char* argv[])
    if (argc > 1) {
        std::ifstream file(argv[1]);
        if (not file) {
            throw std::runtime error("Cannot_open_file.");
        }
        //allocating memory.
        std:: vector < std:: vector < int > edges(10, std:: vector < int > (10, INFTY));
        std::vector<Edge> pisten;
        std::vector<std::vector<Edge>> optimal;
        int count = 0;
        std::string line;
        while (std::getline(file, line)) {
            std::stringstream ss(line);
            int head, tail;
            ss >> tail >> head;
            bool isPiste;
            ss >> isPiste;
            int c;
            ss \gg c;
             edges[tail][head] = c;
             if(isPiste){
                 pisten.push back(Edge(tail, head, c, count));
                 count++;
            }
        int min = INFTY;
        int n = edges.size();
        std::vector < std::vector < int > > dist = edges;
        for (int i = 0; i < n; i++)
             dist[i][i] = 0;
        for (int k = 0; k < n; k++){
```

```
for (int i = 0; i < n; i++)
                                dist[i][j] = std :: min(dist[i][j], dist[i][k] + dist[k][j]);
                   }
             }
            do{
                   int tmp = dist[0][pisten.begin() -> tail];
                   for (auto e = pisten.begin(); e != pisten.end(); e++){
                          tmp += e \rightarrow cost + dist[e \rightarrow head][(e+1) \rightarrow tail];
                          if(tmp >= min)
                                break:
                   tmp \neq pisten.back().cost + dist[pisten.back().tail][0];
                   if (tmp <= min ) {
                          if(tmp < min)
                                optimal.clear();
                         \min = \text{tmp};
                          optimal.push back(pisten);
                   /* here is still a lot of room for improving performance by pruning
             } while (std::next permutation (pisten.begin (), pisten.end (), compareEdge));
             std::ofstream myfile;
             myfile.open ("output.txt");
             myfile << "cost_of_cheapest_tour:_" << min << std::endl;
             myfile << "the_number_of_optimal_tours_is:_" << optimal.size() << std::
             for(auto sol : optimal){
                   myfile << "0_->_sp:_" << dist[0][sol[0].tail] << "_->_";
                   for (auto e = sol.begin(); e != sol.end() - 1; e++)
                           \  \, \text{myfile} \, << \, \, \text{"("} \, << \, e \, \, -\!\!\!> \, \, tail \, << \, \, \text{","} \, \, << \, e \, \, -\!\!\!> \, \, head \, << \, \, \text{")"} \, << \, \, \text{"}\_-\!\!\!>\_sp } 
                               : _ " << dist [e -> head] [(e+1) -> tail] << " _-> _ ";
                   myfile << "(" << sol.back().tail << "," << sol.back().head << ")" <<
                          "\\" << "\\" << std::endl << std::endl;
             myfile.close();
      }
}
    Cost of cheapest tour: 286.
The number of optimal tours is: 126.
    Solutions:
    0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 11 \rightarrow (4,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 40
-> (7.8) -> \text{sp: } 0 -> (8.4) -> \text{sp: } 18 -> (8.6) -> \text{sp: } 0 -> (6.4) -> \text{sp: } 18 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 0 -> (2.0)
    0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 11 - (4,5) - sp: 0 - (5,3) - sp: 40
-> (7.8) -> \text{sp: } 0 -> (8.6) -> \text{sp: } 0 -> (6.4) -> \text{sp: } 18 -> (8.4) -> \text{sp: } 18 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 0 -> (2.0)
    0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 11 - (4,5) - sp: 0 - (5,3) - sp: 38
-> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
    0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 11 - (4,5) - sp: 0 - (5,3) - sp: 38
-> (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
    0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 11 \rightarrow (4,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 38
-> (8.6) -> \text{sp: } 0 -> (6.4) -> \text{sp: } 20 -> (7.8) -> \text{sp: } 0 -> (8.4) -> \text{sp: } 18 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 0 -> (2.0)
    0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 11 \rightarrow (4,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 38
```

for (int j = 0; j < n; j++)

```
-> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 31
-> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 31
-> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 29
-> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 29
-> (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 29
-> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 20 - (4,5) - sp: 29
->(8,6) -> sp: 0 -> (6,4) -> sp: 18 -> (8,4) -> sp: 20 -> (7,8) -> sp: 0 -> (8,9) -> sp: 0 -> (9,2) -> sp: 0 -> (2,0)
                                0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (1,3) \rightarrow (1,3)
 > (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 40 - (7,8) - sp: 0 - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8)
 > (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 40 - (7,8) - sp: 0 - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8)
 > (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 40 - (7,8) - sp: 0 - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8)
 > (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 38 - (8,4) - sp: 0 - (9,5) - sp: 0 - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3)
 > (4,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 38 \rightarrow (8,4) \rightarrow \text{sp: } 0 \rightarrow (1,3) \rightarrow (1,3)
   > (4,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -> sp: 19 -> (1,3) -> sp: 0 -> (3,2) -> sp: 15 -> (9,5) -> sp: 0 -> (5,3) -> sp: 38 -> (8,4) -> sp: 20 -> (5,3) -> sp: 38 -> (8,4) -> sp: 20 -> (5,3) -> sp: 38 -> (8,4) -> sp: 20 -> (8,4) -> (8,4) -> (8,4) -> sp: 20 -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8
 (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 38 - (8,4) - sp: 18 - (9,5) - sp: 19 - (1,3) - sp: 38 - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - 
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 38 - (8,6) - sp: 0 - (9,5) - sp: 0 - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3)
 > (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 0 - (5,3) - sp: 38 - (8,6) - sp: 0 - (9,5) - sp: 0 - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3) - (1,3)
 > (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 38 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow (
   > (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 -> sp: 19 -> (1,3) -> sp: 0 -> (3,2) -> sp: 15 -> (9,5) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (5,3) -> sp: 38 -> (8,6) -> sp: 0 -> (8,6) -> (8,6) -> sp: 0 -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) ->
 > (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 31 - (7,8) - sp: 0 - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4)
 > (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                 0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 31 - (7,8) - sp: 0 - (8,4) - sp: 18 - (9,5) - sp: 31 - (7,8) - sp: 0 - (8,4) - sp: 18 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
```

```
0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 31 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow (
   > (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 31 - (7,8) - sp: 0 - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6)
   > (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                   0 -> sp: 19 -> (1,3) -> sp: 0 -> (3,2) -> sp: 15 -> (9,5) -> sp: 29 -> (8,4) -> sp: 0 -> (4,5) -> sp
   > (5,3) -> \text{sp: } 40 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 29 - (8,4) - sp: 0 - (4,5) - sp: 0
   > (5,3) -> \text{sp: } 38 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) -  sp: 0 - > (3,2) -  sp: 15 - > (9,5) -  sp: 29 - > (8,4) -  sp: 20 - > (7,8) -  sp: 0 - > (7,8) -
   (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 29 - (8,4) - sp: 18 - (8,6) - sp: 0 - sp: 
   (6,4) -> \mathrm{sp:}\ 0 -> (4,5) -> \mathrm{sp:}\ 0 -> (5,3) -> \mathrm{sp:}\ 40 -> (7,8) -> \mathrm{sp:}\ 0 -> (8,9) -> \mathrm{sp:}\ 0 -> (9,2) -> \mathrm{sp:}\ 0 -> (2,0)
                                     0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 29 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow (
   > (4.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 40 -> (7.8) -> \text{sp: } 0 -> (8.4) -> \text{sp: } 18 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 0 -> (2.0)
                                   0 -> sp: 19 -> (1,3) -> sp: 0 -> (3,2) -> sp: 15 -> (9,5) -> sp: 29 -> (8,6) -> sp: 0 -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6
   > (4.5) -> \mathrm{sp:}\ 0 -> (5.3) -> \mathrm{sp:}\ 38 -> (8.4) -> \mathrm{sp:}\ 20 -> (7.8) -> \mathrm{sp:}\ 0 -> (8.9) -> \mathrm{sp:}\ 0 -> (9.2) -> \mathrm{sp:}\ 0 -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> (2.0) -> 
                                     0 - sp: 19 - (1,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 29 - (8,6) - sp: 0 - (6,4) - sp: 20 - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (
   (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 38 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (9,5) -> (9,5) -> (9,5) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6) -> (9,6
   (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 40 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 20 - (4,5) - sp: 0 - (5,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 31
 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 20 - (4,5) - sp: 0 - (5,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 31
 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 0 - > (5,3) - > sp: 0 - > (3,2) - > sp: 15 - > (9,5) - > sp: 29 - > (3,2) - > sp: 15 - > (9,5) - > sp: 15 - > (9,5
 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 0 - > (5,3) - > sp: 0 - > (3,2) - > sp: 15 - > (9,5) - > sp: 29 - > (1,3) - > sp: 15 - > (1,3
-> (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 20 - (4,5) - sp: 0 - (5,3) - sp: 0 - (3,2) - sp: 15 - (9,5) - sp: 29
 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -> \mathrm{sp:}\ 19 -> (1,3) -> \mathrm{sp:}\ 20 -> (4,5) -> \mathrm{sp:}\ 0 -> (5,3) -> \mathrm{sp:}\ 0 -> (3,2) -> \mathrm{sp:}\ 15 -> (9,5) -> \mathrm{sp:}\ 29 -> (1,3) -> \mathrm{sp:}\ 10 -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -> (1,3) -
 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 31 - > (7,8) - > sp: 0 - > (8,4) - > sp: 18 - > (8,6) - > sp: 0 - > (8,4) - > sp: 18 - > (8,6) - > sp: 18 - > (8,6
 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 31 - > (7,8) - > sp: 0 - > (8,4) - > sp: 18 - > (8,6) - > sp: 0 - > (8,4) - > sp: 18 - > (8,6) - > sp: 18 - > (8,6
 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 20 - (4,5) - sp: 31 - (7,8) - sp: 0 - (8,6) - sp: 0 - (6,4) - sp: 18
 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 31 - > (7,8) - > sp: 0 - > (8,6) - > sp: 0 - > (6,4) - > sp: 18
 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
```

```
0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 20 -> (4,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0
-> (6.4) -> \text{sp: } 18 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 15 -> (9.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 0 -> (3.2) -> \text{sp: } 0 -> (2.0)
                               0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 20 \rightarrow (4,5) \rightarrow \text{sp: } 29 \rightarrow (8,4) \rightarrow \text{sp: } 20 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow \text{sp: } 0
-> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -   sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 29 - > (8,4) - > sp: 18 - > (8,6) - > sp: 0 - > (6,4) - > sp: 20 - > (6
(7,8) \rightarrow \text{sp: } 0 \rightarrow (8,9) \rightarrow \text{sp: } 0 \rightarrow (9,2) \rightarrow \text{sp: } 15 \rightarrow (9,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 0 \rightarrow (2,0)
                                0 - sp: 19 - sp: 10 - sp: 20 - sp: 20
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 29 - > (8,6) - > sp: 0 - > (6,4) - > sp: 20 - > (7,8) - > sp: 0 - >
-> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 -  sp: 19 - > (1,3) - > sp: 20 - > (4,5) - > sp: 29 - > (8,6) - > sp: 0 - > (6,4) - > sp: 20 - > (7,8) - > sp: 0 - >
-> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -   sp: 19 -   (1,3) -   sp: 20 -   (4,5) -   sp: 29 -   (8,6) -   sp: 0 -   (6,4) -   sp: 18 -   (8,4) -   sp: 20 -  
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 20 - (4,5) - sp: 29 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,4) - sp: 20 - (8,6) - sp: 19 - (6,4) - sp: 18 - (8,4) - sp: 20 - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - 
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 - \operatorname{sp}: 19 - \operatorname{(1,3)} - \operatorname{sp}: 40 - \operatorname{(7,8)} - \operatorname{sp}: 0 - \operatorname{(8,4)} - \operatorname{sp}: 0 - \operatorname{(4,5)} - \operatorname{sp}: 0 - \operatorname{(5,3)} - \operatorname{sp}: 0 - \operatorname{(3,2)}
-> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -  sp: 19 - > (1,3) - > sp: 40 - > (7,8) - > sp: 0 - > (8,4) - > sp: 0 - > (4,5) - > sp: 29 - > (8,6) - > sp: 0 - > 
 > (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,4) - sp: 0 - (4,5) - sp: 29 - (8,6) - sp: 0 - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6)
 > (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                               0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,4) \rightarrow \text{sp: } 18 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow (
 > (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                               0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,4) \rightarrow \text{sp: } 18 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow (
 > (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,4) - sp: 18 - (8,6) - sp: 0 - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4) - (6,4)
 > (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,4) - sp: 18 - (8,6) - sp: 0 - (6,4) - sp: 18
-> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,4) - sp: 18 - (8,6) - sp: 0 - (6,4) - sp: 18
-> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,4) - sp: 18 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,2) - sp: 18 - (9,2) - sp: 18 - (9,2) - sp: 18 - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (
 (9,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 40 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 29 -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5) -> (9,5
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                0 -   sp: 19 - (1,3) -  sp: 40 - (7,8) -  sp: 0 - (8,6) -  sp: 0 - (6,4) -  sp: 0 - (4,5) -  sp: 0 - (5,3) - 
 -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                               0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 0 \rightarrow (4,5) \rightarrow \text{sp: } 29 \rightarrow (4,5) \rightarrow (4,5)
  > (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
```

```
0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,6) - sp: 0 - (6,4) - sp: 0 - (4,5) - sp: 29 - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) -
> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                       0 -> sp: 19 -> (1,3) -> sp: 40 -> (7,8) -> sp: 0 -> (8,6) -> sp: 0 -> (6,4) -> sp: 18 -> (8,4) -> sp: 0 -> (8,6) -> sp: 0 -> (8,6) -> sp: 18 -> (8,4) -> sp: 0 -> (8,6) -> (8,6) -> sp: 0 -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (
> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 -> sp: 19 -> (1,3) -> sp: 40 -> (7,8) -> sp: 0 -> (8,6) -> sp: 0 -> (6,4) -> sp: 18 -> (8,4) -> sp: 0 -> (8,6) -> sp: 18 -> (8,4) -> sp: 0 -> (8,6) -> sp: 18 -> (8,4) -> sp: 0 -> (8,6) -> sp: 18 -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -
> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1.3) - sp: 40 - (7.8) - sp: 0 - (8.6) - sp: 0 - (6.4) - sp: 18 - (8.4) - sp: 0 - (8.6) - sp: 0
> (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,4) - sp: 18
-> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,4) - sp: 18
-> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                       0 -> sp: 19 -> (1,3) -> sp: 40 -> (7,8) -> sp: 0 -> (8,6) -> sp: 0 -> (6,4) -> sp: 18 -> (8,9) -> sp: 0 -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8
> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                         0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 18 \rightarrow (8,9) \rightarrow \text{sp: } 0 \rightarrow (8,9) \rightarrow (
> (9,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9
(8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                       0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9
(8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 40 - (7,8) - sp: 0 - (8,9) - sp: 0 - (9,5) - sp: 29 - (8,4) - sp: 18 - (8,9) - sp: 19 - (9,5) - sp: 29 - (9,5) - sp: 18 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                       0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 40 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,9) \rightarrow \text{sp: } 0 \rightarrow (9,5) \rightarrow \text{sp: } 29 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (9,5) \rightarrow (9,5)
> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                       0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 38 \rightarrow (8,4) \rightarrow \text{sp: } 0 \rightarrow (4,5) \rightarrow \text{sp: } 0 \rightarrow (5,3) \rightarrow \text{sp: } 0 \rightarrow (3,2) \rightarrow \text{sp: } 15 \rightarrow (3,2) \rightarrow (3,2)
> (9,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 0 - (4,5) - sp: 0 - (5,3) - sp: 0 - (3,2) - sp: 15 - (3,2) - (3,2) - sp: 15 - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - (3,2) - 
> (9,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 0 - (4,5) - sp: 31 - (7,8) - sp: 0 - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6)
 > (6,4) -> sp: 18 -> (8,9) -> sp: 0 -> (9,2) -> sp: 15 -> (9,5) -> sp: 0 -> (5,3) -> sp: 0 -> (3,2) -> sp: 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 0 - (4,5) - sp: 31 - (7,8) - sp: 0 - (8,6) - sp: 0
> (6,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 0 - (4,5) - sp: 29 - (8,6) - sp: 0 - (6,4) - sp: 20 - (6,4) - sp: 20 - (8,6) - sp: 20 - (8,6) - sp: 20 - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (8,6) - (
(7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                         0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 38 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (8,6) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4
(7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                         0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,4) - > sp: 20 - > (7,8) - > sp: 0 - > (8,6) - > sp: 0 - > (6,4) - > sp: 0 - > 
> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                       0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 38 \rightarrow (8,4) \rightarrow \text{sp: } 20 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow (
 > (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
```

```
0 -> \mathrm{sp:}\ 19 -> (1,3) -> \mathrm{sp:}\ 38 -> (8,4) -> \mathrm{sp:}\ 20 -> (7,8) -> \mathrm{sp:}\ 0 -> (8,6) -> \mathrm{sp:}\ 0 -> (6,4) -> (6,4) -> \mathrm{sp:}\ 0 -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> (6,4) -> 
 > (4.5) -> \text{sp: } 29 -> (8.9) -> \text{sp: } 0 -> (9.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 0 -> (3.2) -> \text{sp: } 15 -> (9.2) -> \text{sp: } 0 -> (2.0)
                             0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 38 -> (8,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18
-> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,4) - > sp: 20 - > (7,8) - > sp: 0 - > (8,6) - > sp: 0 - > (6,4) - > sp: 18
->(8,9) -> sp: 0 -> (9,5) -> sp: 11 -> (4,5) -> sp: 0 -> (5,3) -> sp: 0 -> (3,2) -> sp: 15 -> (9,2) -> sp: 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 20 - (7,8) - sp: 0 - (8,9) - sp: 0 - (9,2) - sp: 15 - sp: 
 (9,5) -> \text{sp: } 29 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 20 - (7,8) - sp: 0 - (8,9) - sp: 0 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - sp: 29 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,4) - > sp: 18 - > (8,6) - > sp: 0 - > (6,4) - > sp: 0 - > (4,5) - > sp: 0 - > 
 > (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                             0 -> sp: 19 -> (1,3) -> sp: 38 -> (8,4) -> sp: 18 -> (8,6) -> sp: 0 -> (6,4) -> sp: 0 -> (4,5) -> sp: 31 ->
 (7.8) -> \text{sp: } 0 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 15 -> (9.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 0 -> (3.2) -> \text{sp: } 0 -> (2.0)
                              0 - sp: 19 - (1.3) - sp: 38 - (8.4) - sp: 18 - (8.6) - sp: 0 - (6.4) - sp: 0 - (4.5) - sp: 31 - sp: 0 - (4.5) - sp: 31 - sp: 31
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,4) - > sp: 18 - > (8,6) - > sp: 0 - > (6,4) - > sp: 20 - > (7,8) - > sp: 0 - >
-> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 18 - (8,6) - sp: 0 - (6,4) - sp: 20 - (7,8) - sp: 0
-> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,4) - sp: 18 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 31 - (9,5) - sp: 31 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9
 (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - sp: 13 - sp: 38 - sp: 38 - sp: 18 - sp: 18 - sp: 0 - sp: 0 - sp: 31 - sp: 31 - sp: 0 - sp: 0 - sp: 0 - sp: 31 - sp: 0 -
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 -   sp: 19 - (1,3) -  sp: 38 - (8,6) -  sp: 0 - (6,4) -  sp: 0 - (4,5) -  sp: 0 - (5,3) -  sp: 0 - (3,2) - 
-> \text{sp: } 15 -> (9,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 -   sp: 19 - (1,3) -  sp: 38 - (8,6) -  sp: 0 - (6,4) -  sp: 0 - (4,5) -  sp: 0 - (5,3) -  sp: 0 - (3,2) - 
-> sp: 15 -> (9.5) -> sp: 29 -> (8.4) -> sp: 20 -> (7.8) -> sp: 0 -> (8.9) -> sp: 0 -> (9.2) -> sp: 0 -> (2.0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 0 - (4,5) - sp: 31 - (7,8) - sp: 0 - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8)
 > (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 -> sp: 19 -> (1,3) -> sp: 38 -> (8,6) -> sp: 0 -> (6,4) -> sp: 0 -> (4,5) -> sp: 31 -> (7,8) -> sp: 0 -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8,6) -> (8
 > (8,4) -> \text{sp: } 18 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 0 - (4,5) - sp: 29 - (8,4) - sp: 20 - (8,4) - sp: 20 - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                              0 -> sp: 19 -> (1,3) -> sp: 38 -> (8,6) -> sp: 0 -> (6,4) -> sp: 0 -> (4,5) -> sp: 29 -> (8,4) -> sp: 20 -> (8,4) -> (8,4) -> sp: 20 -> (8,4) -> (8,4) -> sp: 20 -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                              0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 20 - (7,8) - sp: 0 - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4)
 > (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                             0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 38 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 20 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,4) \rightarrow (
  > (4,5) -> \text{sp: } 29 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
```

```
0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 20 - (7,8) - sp: 0 - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4) - (8,4)
 > (4.5) -> \text{sp: } 29 -> (8.9) -> \text{sp: } 0 -> (9.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 0 -> (3.2) -> \text{sp: } 15 -> (9.2) -> \text{sp: } 0 -> (2.0)
                                   0 -> \text{sp: } 19 -> (1,3) -> \text{sp: } 38 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 20 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 18
 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,6) - > sp: 0 - > (6,4) - > sp: 20 - > (7,8) - > sp: 0 - > (8,4) - > sp: 18
-> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 20 - (7,8) - sp: 0 - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9)
 > (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 20 - (7,8) - sp: 0 - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9) - (8,9)
 > (9,5) -> \text{sp: } 29 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,4) - sp: 0 - (4,5) - sp: 0
 > (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                   0 -> sp: 19 -> (1,3) -> sp: 38 -> (8,6) -> sp: 0 -> (6,4) -> sp: 18 -> (8,4) -> sp: 0 -> (4,5) -> sp: 31 ->
 (7.8) -> \text{sp: } 0 -> (8.9) -> \text{sp: } 0 -> (9.2) -> \text{sp: } 15 -> (9.5) -> \text{sp: } 0 -> (5.3) -> \text{sp: } 0 -> (3.2) -> \text{sp: } 0 -> (2.0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,4) - sp: 0 - (4,5) - sp: 31 - (4,5) - sp: 31 - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,5) - (4,
 (7,8) -> \text{sp: } 0 -> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,6) - > sp: 0 - > (6,4) - > sp: 18 - > (8,4) - > sp: 20 - > (7,8) - > sp: 0 - >
-> (8,9) -> \text{sp: } 0 -> (9,2) -> \text{sp: } 15 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 -  sp: 19 - > (1,3) - > sp: 38 - > (8,6) - > sp: 0 - > (6,4) - > sp: 18 - > (8,4) - > sp: 20 - > (7,8) - > sp: 0 - > (6,4) - > sp: 18 - > (8,4) - > sp: 20 - > (7,8) - > sp: 18 - > (8,4) - > sp: 18 - > (8,4
-> (8,9) -> \text{sp: } 0 -> (9,5) -> \text{sp: } 11 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,2) - sp: 18 - (9,2) - sp: 18 - (9,2) - sp: 18 - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (9,2) - (
   (9,5) -> \text{sp: } 31 -> (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,6) - sp: 0 - (6,4) - sp: 18 - (8,9) - sp: 0 - (9,5) - sp: 31 - (9,5) - sp: 31 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,
 (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                   0 - sp: 19 - sp: 13 - sp: 38 - sp: 38 - sp: 0 - sp: 0 - sp: 15 - sp: 31 - sp: 31 - sp: 0 - s
 (8,4) -> \text{sp: } 18 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 31 - (7,8) - sp: 0 - sp: 
   (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 29 - (8,4) - sp: 20 - (8,5) - sp: 20 - (9,5) - sp: 20 - (9,5) - sp: 20 - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - 
 (7,8) -> \text{sp: } 0 -> (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,9) - sp: 0 - (9,2) - sp: 15 - (9,5) - sp: 29 - (8,6) - sp: 0 - (8,6) - sp: 0 - (9,2) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5) - (9,5
   (6,4) -> sp: 20 -> (7,8) -> sp: 0 -> (8,4) -> sp: 0 -> (4,5) -> sp: 0 -> (5,3) -> sp: 0 -> (3,2) -> sp: 0 -> (2,0)
                                     0 -> sp: 19 -> (1,3) -> sp: 38 -> (8,9) -> sp: 0 -> (9,5) -> sp: 31 -> (7,8) -> sp: 0 -> (8,4) -> sp: 18 -> (7,8) -> sp: 0 -> (8,4) -> sp: 18 -> (8,4) -> (8,4) -> sp: 18 -> (8,4) -> (8,4) -> sp: 18 -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4) -> (8,4
 (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                   0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 38 \rightarrow (8,9) \rightarrow \text{sp: } 0 \rightarrow (9,5) \rightarrow \text{sp: } 31 \rightarrow (7,8) \rightarrow \text{sp: } 0 \rightarrow (8,6) \rightarrow (
 > (6,4) -> \text{sp: } 18 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                     0 - sp: 19 - (1,3) - sp: 38 - (8,9) - sp: 0 - (9,5) - sp: 29 - (8,4) - sp: 20 - (7,8) - sp: 0 - (7,8) - sp: 0 - (7,8) - sp: 0 - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8) - (7,8
   (8,6) -> \text{sp: } 0 -> (6,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
                                   0 \rightarrow \text{sp: } 19 \rightarrow (1,3) \rightarrow \text{sp: } 38 \rightarrow (8,9) \rightarrow \text{sp: } 0 \rightarrow (9,5) \rightarrow \text{sp: } 29 \rightarrow (8,6) \rightarrow \text{sp: } 0 \rightarrow (6,4) \rightarrow \text{sp: } 20 \rightarrow (6,4) \rightarrow (6,4
   (7,8) -> \text{sp: } 0 -> (8,4) -> \text{sp: } 0 -> (4,5) -> \text{sp: } 0 -> (5,3) -> \text{sp: } 0 -> (3,2) -> \text{sp: } 15 -> (9,2) -> \text{sp: } 0 -> (2,0)
```