#include *<iostream>*

#include *<cstdio>*

#include *<queue>*

**using** **namespace** std;

**int** dx[] = { -1,1,0,0 },

dy[] = { 0,0,-1,1 };

**int** i, j;

**char** map[100][100], op;

**int** map\_size, end\_loc\_row, end\_loc\_col, now\_num, ans, check[100][100], result[100][100];

**bool** dfs(**int** row, **int** col, **int** deep) {

**bool** isNum;

**int** save\_num;

**char** save\_op;

**if** (map[row][col] >= '0'&&map[row][col] <= '9') {

isNum = true;

save\_num = now\_num;

**switch** (op) {

**case** '+':

now\_num += map[row][col] - '0';

**break**;

**case** '-':

now\_num -= map[row][col] - '0';

**break**;

**case** '\*':

now\_num \*= map[row][col] - '0';

**break**;

**case** '/':

**if** (map[row][col] == '0') now\_num = 0;

**else** now\_num /= map[row][col] - '0';

**break**;

}

}

**else** {

isNum = false;

save\_op = op;

op = map[row][col];

}

**if** (row == end\_loc\_row && col == end\_loc\_col) {

**if** (now\_num == ans) {

result[row][col] = deep;

**return** true;

}

**else** {

now\_num = save\_num;

**return** false;

}

}

check[row][col] = 1;

**for** (**int** i = 0; i < 4; i++) {

**if** (row + dy[i] > 0 && row + dy[i] <= map\_size && col + dx[i] >= 0 && col + dx[i] < map\_size && check[row + dy[i]][col + dx[i]] != 1) {

**if** (dfs(row + dy[i], col + dx[i], deep+1)) {

result[row][col] = deep;

**return** true;;

}

}

}

check[row][col] = 0;

**if**(isNum) now\_num = save\_num;

**else** op = save\_op;

**return** false;

}

**int** main() {

**while** (1) {

op = '#';

**for** (i = 0; i < 100; i++)

**for** (j = 0; j < 100; j++) {

check[i][j] = result[i][j] = 0;

}

printf("What is MAP\_SIZE ? (n\*n map's size => n) : ");

cin >> map\_size;

printf("Draw your map plz**\n**-------------------------------------------**\n**");

**for** (i = 1; i <= map\_size; i++)

scanf("%s", map[i]);

printf("-------------------------------------------**\n**");

printf("What is END\_LOCATION ?**\n**row : ");

cin >> end\_loc\_row;

printf("column : ");

cin >> end\_loc\_col;

end\_loc\_col--;

printf("What is ANSWER ? : ");

cin >> ans;

printf("**\n** /////////// Calculating.... ///////////**\n\n**");

now\_num = map[1][0] - '0';

dfs(1, 0, 1);

**for** (i = 1; i <= map\_size; i++) {

**for** (j = 0; j < map\_size; printf("%d ", result[i][j++]));

cout << endl << endl;

}

printf("////////////////////////////////////////**\n\n**");

cout << endl << endl;

}

}