#include <stdio.h>

int max(int a, int b) {

return (a > b) ? a : b;

}

int maxCoinCollection(int grid[][3], int rows, int cols) {

int dp[rows][cols];

dp[0][0] = grid[0][0];

// Initialize the first row

for (int j = 1; j < cols; j++) {

dp[0][j] = dp[0][j - 1] + grid[0][j];

}

// Initialize the first column

for (int i = 1; i < rows; i++) {

dp[i][0] = dp[i - 1][0] + grid[i][0];

}

// Fill in the rest of the dp table

for (int i = 1; i < rows; i++) {

for (int j = 1; j < cols; j++) {

dp[i][j] = max(dp[i - 1][j], dp[i][j - 1]) + grid[i][j];

}

}

return dp[rows - 1][cols - 1];

}

int main() {

int grid[3][3] = {

{1, 3, 1},

{2, 2, 4},

{5, 0, 2}

};

int rows = 3;

int cols = 3;

int result = maxCoinCollection(grid, rows, cols);

printf("Maximum value of coins collected: %d\n", result);

return 0;

}