#include <stdio.h>

void nextmove(int move[]);

int getaccessibility(int x, int y);

int board [8][8];

int main() {

int x = 1;

int y = 3;

int moveNumber = 2;

int temp [2];

int move [2];

for (int i = 0; i < 8; i++) {

for (int j = 0; j < 8; j++) {

board[i][j] = 0;

}

}

board[x][y] = 1;

for (int i = 1; i < 64; i++) {

move[0] = x;

move[1] = y;

nextmove(move);

x = move[0];

y = move[1];

board[x][y] = moveNumber;

moveNumber++;

}

for (int i = 0; i < 8; i++) {

for (int j = 0; j < 8; j++) {

printf("%d ",board[i][j]);

}

printf("\n\n");

}

return 0;

}

void nextmove(int move[]) {

int x = move[0];

int y = move[1];

int accessibility = 8;

if (((x + 2) < 8) && ((y + 1) < 8) && (board[x + 2][y + 1] == 0)) {

if((getaccessibility((x + 2), (y + 1)) < accessibility)) {

accessibility = getaccessibility((x + 2), (y + 1));

move[0] = x + 2;

move[1] = y + 1;

}

}

if(((x + 2) < 8) && ((y - 1) >= 0) && (board[x + 2][y - 1] == 0)) {

if((getaccessibility((x + 2), (y - 1)) < accessibility)) {

accessibility = getaccessibility((x + 2), (y - 1));

move[0] = x + 2;

move[1] = y - 1;

}

}

if(((x + 1) < 8) && ((y + 2) < 8) && (board[x + 1][y + 2] == 0)) {

if((getaccessibility((x + 1), (y + 2)) < accessibility)) {

accessibility = getaccessibility((x + 1), (y + 2));

move[0] = x + 1;

move[1] = y + 2;

}

}

if(((x + 1) < 8) && ((y - 2) >= 0) && (board[x + 1][y - 2] == 0)) {

if((getaccessibility((x + 1), (y - 2)) < accessibility)) {

accessibility = getaccessibility((x + 1), (y - 2));

move[0] = x + 1;

move[1] = y - 2;

}

}

if(((x - 1) >= 0) && ((y + 2) < 8) && (board[x - 1][y + 2] == 0)) {

if((getaccessibility((x - 1), (y + 2)) < accessibility)) {

accessibility = getaccessibility((x - 1), (y + 2));

move[0] = x - 1;

move[1] = y + 2;

}

}

if(((x - 1) >= 0) && ((y - 2) >= 0) && (board[x - 1][y - 2] == 0)) {

if((getaccessibility((x - 1), (y - 2)) < accessibility)) {

accessibility = getaccessibility((x - 1), (y - 2));

move[0] = x - 1;

move[1] = y - 2;

}

}

if(((x - 2) >= 0) && ((y + 1) < 8) && (board[x - 2][y + 1] == 0)) {

if((getaccessibility((x - 2), (y + 1)) < accessibility)) {

accessibility = getaccessibility((x - 2), (y + 1));

move[0] = x - 2;

move[1] = y + 1;

}

}

if(((x - 2) >= 0) && ((y - 1) >= 0) && (board[x - 2][y - 1] == 0)) {

if((getaccessibility((x - 2), (y - 1)) < accessibility)) {

accessibility = getaccessibility((x - 2), (y - 1));

move[0] = x - 2;

move[1] = y - 1;

}

}

}

int getaccessibility(int a, int b) {

int x = a;

int y = b;

int accessibility = 0;

if (((x + 2) < 8) && ((y + 1) < 8)

&& (board[x + 2][y + 1] == 0))

accessibility++;

if (((x + 2) < 8) && ((y - 1) >= 0)

&& (board[x + 2][y - 1] == 0))

accessibility++;

if (((x + 1) < 8) && ((y + 2) < 8)

&& (board[x + 1][y + 2] == 0))

accessibility++;

if (((x + 1) < 8) && ((y - 2) >= 0)

&& (board[x + 1][y - 2] == 0))

accessibility++;

if (((x - 1) >= 0) && ((y + 2) < 8)

&& (board[x - 1][y + 2] == 0))

accessibility++;

if (((x - 1) >= 0) && ((y - 2) >= 0) && (board[x

- 1][y - 2] == 0))

accessibility++;

if (((x - 2) >= 0) && ((y + 1) < 8)

&& (board[x - 2][y + 1] == 0))

accessibility++;

if (((x - 2) >= 0) && ((y - 1) >= 0) && (board[x

- 2][y - 1] == 0))

accessibility++;

return accessibility;

}