#include <iostream>

using namespace std;

int main(){

int N, M;

cin >> N >> M;

string str1 = "WBWBWBWB"; // 흰색으로 시작

string str2 = "BWBWBWBW"; // 검은색으로 시작

char arr[50][50];

// 맵 입력 받기

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

string s; cin >> s;

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

arr[i][j] = s[j];

}

}

int wf = 64, bf = 64;

// 비교

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

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

int twf = 0, tbf = 0;

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

string comp1;

string comp2;

if(k % 2 == 0){

comp1 = str1;

comp2 = str2;

}else{

comp1 = str2;

comp2 = str1;

}

int idx = 0;

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

if(comp1[idx] != arr[k][h])

twf++;

if(comp2[idx] != arr[k][h])

tbf++;

idx++;

}

}

if(twf < wf)

wf = twf;

if(tbf < bf)

bf = tbf;

}

}

wf < bf ? cout << wf : cout << bf;

return 0;

}