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PROG: palpath

LANG: C++

ID: hayk.sa1

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#include <stdio.h>

#include <string.h>

int a[21][21];

int d[3][21][21][21][21];

int di[8] = {-1, -1, -1, 0, 0, 1, 1, 1};

int dj[8] = {-1, 0, 1, -1, 1, -1, 0, 1};

int main()

{

freopen("palpath.in", "r", stdin);

freopen("palpath.out", "w", stdout);

int n, m, sw, t, i, j, p, q, k, l, x, y, u, v;

scanf("%d%d", &n, &m);

for (i = 0; i < n; i++)

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

scanf("%d", a[i]+j);

sw = 0;

for (i = 0; i < n; i++)

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

{

d[1][i][j][i][j] = 1;

for (k = 0; k < 8; k++)

{

p = i+di[k];

q = j+dj[k];

if (p >= 0 && p < n && q >= 0 && q < n)

d[2][i][j][p][q] = (a[i][j] == a[p][q]);

}

}

for (t = 3; t <= m; t++)

{

memset(d[t%3], 0, sizeof(d[t%3]));

for (i = 0; i < n; i++)

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

for (p = 0; p < n; p++)

for (q = 0; q < n; q++)

if (a[i][j] == a[p][q])

for (k = 0; k < 8; k++)

{

x = i+di[k];

y = j+dj[k];

if (x >= 0 && x < n && y >= 0 && y < n)

for (l = 0; l < 8; l++)

{

u = p+di[l];

v = q+dj[l];

if (u >= 0 && u < n && v >=0 && v < n)

d[t%3][i][j][p][q] += d[(t-2)%3][x][y][u][v];

}

}

}

t = 0;

for (i = 0; i < n; i++)

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

for (k = 0; k < n; k++)

for (l = 0; l < n; l++)

t += d[m%3][i][j][k][l];

printf("%d\n", t);

return 0;

}