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PROG: leap2

LANG: C++

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#include <stdio.h>

int w[400][400];

int x[160000], y[160000];

int d[160000], p[160000];

int dx[8] = {-2, -2, -1, -1, 1, 1, 2, 2};

int dy[8] = {-1, 1, -2, 2, -2, 2, -1, 1};

int main()

{

freopen("leap2.in", "r", stdin);

freopen("leap2.out", "w", stdout);

int n, k, l, i, j;

scanf("%d", &n);

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

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

{

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

x[w[i][j]] = i;

y[w[i][j]] = j;

}

for (i = 1; i <= n\*n; i++)

{

d[i] = 1;

p[i] = -1;

}

for (i = n\*n-1; i > 0; i--)

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

{

k = x[i]+dx[j];

l = y[i]+dy[j];

if (k >= 0 && k < n && l >= 0 && l < n && w[k][l] > i)

if (d[w[k][l]]+1 > d[i] || d[w[k][l]]+1 == d[i] && p[i] > w[k][l])

{

d[i] = d[w[k][l]]+1;

p[i] = w[k][l];

}

}

k = 1;

for (i = 2; i <= n\*n; i++)

if (d[k] < d[i])

k = i;

printf("%d\n", d[k]);

while (k != -1)

{

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

k = p[k];

}

return 0;

}