#include <stdio.h>

#include<stdlib.h>

int clockwiserotation(int n,int \*\*m)

{int arr[n];

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

arr[i]=0;

}

int p[n][n];

printf("Output-1A\n");

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

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

arr[j]=m[n-(j+1)][i];

printf("%d ",arr[j]);

if(j%2==0){

p[i][j]=arr[j]-1;

}

else

p[i][j]=arr[j]+1;

}

printf("\n");

}

printf("Output-1B\n");

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

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

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

}printf("\n");}}

void anticlockwiserotation(int n,int \*\*m)

{

int arr[n];

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

arr[i]=0;

}

int p[n][n];

printf("Output-2A\n");

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

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

arr[j]=m[j][n-(i+1)];

printf("%d ",arr[j]);

if(j%2==0){

p[i][j]=arr[j]+1;

}

else

p[i][j]=arr[j]-1;

}

printf("\n");

}

printf("Output-2B\n");

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

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

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

}printf("\n");}

}

int main ()

{

int n;

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

int \*\*m=(int \*\*)(malloc(n\*sizeof(int \*)));

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

m[i]=(int \*)(malloc(n\*(sizeof(int \*))));

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

scanf("%d ",&m[i][j]);

}

}

if(n==1){

clockwiserotation(n,m);

}

else{

clockwiserotation(n,m);}

if(n==1){

anticlockwiserotation(n,m);

}

else{

anticlockwiserotation(n,m);}

return 0;

}