#include <stdio.h>

#include <stdlib.h>

FILE \*input;

FILE \*output;

void vvodcons()

{

int A[3];

for (int i = 0; i<3; i++) {

printf("Input a%d = ", i+1);

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

printf("\n");

}

int B[3][3];

int k;

for (int i=0; i<3; i++) {

for (int j=0; j<3; j++) {

k = A[j] \* 3;

B[i][j] = A[i] - k;

}

}

printf ("Your matrix :\n");

for (int i=0; i<3; i++) {

for (int j=0; j<3; j++) {

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

}

printf("\n");

}

printf("Input 1 to put the result into file\n");

int r = 0;

scanf("%d", &r);

if (r==1) {

output = fopen("output.txt", "w");

for (int i=0; i<3; i++) {

fprintf(output, "%d %d %d\n", B[i][1], B[i][2], B[i][3]);

}

fclose(output);

}

}

void vvodfile()

{

int A[3];

input = fopen("input.txt", "r");

for (int i=0; i<3; i++) {

fscanf(input, "%d", &A[i]);

}

fclose(input);

int B[3][3];

int k;

for (int i=0; i<3; i++) {

for (int j=0; j<3; j++) {

k = A[j] \* 3;

B[i][j] = A[i] - k;

}

}

printf ("Your matrix :\n");

for (int i=0; i<3; i++) {

for (int j=0; j<3; j++) {

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

}

printf("\n");

}

printf("Input 1 to put the result into file\n");

int r = 0;

scanf("%d", &r);

if (r==1) {

output = fopen("output.txt", "w");

for (int i=0; i<3; i++) {

fprintf(output, "%d %d %d\n", B[i][1], B[i][2], B[i][3]);

}

fclose(output);

}

}

int main()

{

int restart = 0;

do {

printf("How to input a1, a2, a3 ?\n1)by console\n2)by file\n");

int c;

scanf("%d", &c);

int m = 1;

while (m != 0)

{

if (c==1) {

vvodcons();

m = 0;

}

else if (c==2) {

vvodfile();

m = 0;

}

else {

printf("Wrong number, try again\n");

}

}

printf("\n\nInput 1 to restart\n");

scanf("%d", &restart);

printf("\n\n");

} while (restart ==1);

return 0;

}