#include<stdio.h>

#include<ctype.h>

int main(){

char text[500],ch;

int key;

//taking user input

printf("Enter a message to decrypt;");

scanf("%s",text);

printf("Enter the key:");

scanf("%d",&key);

//visiting character by character

for(int i=0;text[i]!='\0';++i){

ch=text[i];

//check for valid character

if(isalnum(ch)){

//lower case characters

if(islower(ch)){

ch=(ch-'a'-key+26)%26+'a';

}

if(isupper(ch)){

ch=(ch-'A'-key+26)%26+'A';

}

//numbers

if(isdigit(ch)){

ch=(ch-'0'-key+10)%10+'0';

}

}

// invalid character

else{

printf("Invalid Message");

}

// adding encoded answer

text[i]=ch;

}

printf("Decrypted message:%s",text);

return 0;

}