\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Report: hw3

Author: F74082086 王維瀚 <leowang3268@gmail.com>

Class: 乙班

Description: Most difficult homework of this course currently!　There are several attempts:

1. Include <time.h> to generate an random answer.(Notice that the answer should be generated at once. I made it under “for loop” with “scanf”, leading to generating the answer one by one.)
2. Examine how many H there are. The more difficult one is to examine X. Use double layer of “for loop” and let each number of guess compare the answer respectively.(Notice that once the number of guess equals one of the numbers of answer, the second “for loop” should break!)

3.Finally, since my way to counting X will include H, I made the original X minus H, getting the correct X.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Code:

#include <stdio.h>

#include <stdlib.h>

#include <time.h>

int main(int argc , char \*argv[]) {

int n, p;

n = atoi(argv[1]);

p = atoi(argv[2]);

int a[p] , b[p];

srand(time(NULL));

int H;

int X;

int i, j;

for(i=0;i<p;i++) {

a[i] = (rand()%n)+1;

}

while(H != p) {

H=0;

X=0;

for(i=0;i<p;i++) {

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

}

for(i=0;i<p;i++) {

if(b[i] == a[i]) {

H++;

}

for(j=0;j<p;j++) {

if(b[i] == a[j]) {

X++;

break;

}

}

}

X-=H;

if(H == p) {

break;

}

else {

printf("%dH%dX\n" , H , X);

}

}

printf("Correct!\n");

return 0;

}

Compilation:

gcc -o hw3 hw3.c

Execution:

./hw3 4 4

Output:

1 2 3 4

0H2X

1 2 1 1

2H2X

2 1 1 1

4H0X

You win!!