

期中考试讲评：编程题

——多年后你仍然会吐槽的那段手写代码

输出不及格的同学的成绩

Actually...it's just okay...

```
1  #include<stdio.h>
2  int main()
3  {
4      float score[3][4] = {{56,57,70,60},{90,99,100,98},{58,87,90,81}};
5      int i,j,flag;
6      for(i=0;i<3;i++)
7      {
8          flag = 0;
9          for(j=0;j<4;j++)
10         {
11             if(score[i][j]<60)
12             {
13                 flag=1;
14                 break;
15             }
16         }
17         if(flag)
18         {
19             printf("No.%d fails,his scores are:\n",i+1);
20             for(j=0;j<4;j++)
21                 printf("%5.1f ",score[i][j]);
22             printf("\n");
23         }
24     }
25     return 0;
26 }
```

朗顿的蚂蚁

当步数足够多，蚂蚁最终总能筑起高速公路

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#define SIZE 10

//棋盘
int board[SIZE][SIZE] = {0};

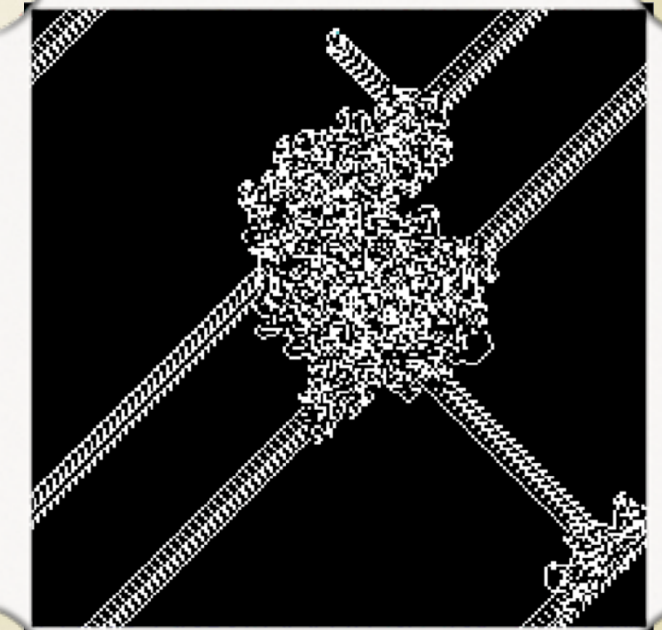
//生成随机数
int randInt(int min,int max)
{
    return rand()%(max-min)+min;
}

//展示棋盘的函数
void display()
{
    for(int i = 0; i < SIZE ;i++)
    {
        for(int j = 0 ; j < SIZE ;j++)
        {
            printf("|");
            if(board[i][j]==1)
            {
                printf(" * ");
            }
            else if(board[i][j]==0)
            {
                printf(" ");
            }
        }
        printf("\n");
    }
}
```

```
int judgeKnock(const int x, const int y)
{
    if(x == SIZE || y == SIZE || x < 0 || y < 0)
    {
        return 1;
    }
    return 0;
}

int main()
{
    int x,y;
    int step = 0;
    int towards;
    int maxStep;
    srand(time(0));
    //生成初始坐标(x,y)
    x = randInt(0, SIZE);
    y = randInt(0, SIZE);
    //生成初始方向
    towards = randInt(0, 4);
    //输入步数
    printf("Please enter max steps:\n");
    scanf("%d",&maxStep);
    printf("Init (%d,%d), towards:%d\n",x,y,towards);
    while((!judgeKnock(x,y))&&step<=maxStep)
    {
        if(!judgeKnock(x, y))
        {
            if(board[x][y]==1)
            {
                board[x][y]=0;
                //左转
                towards = (towards-1+4)%4;
            }
            else if(board[x][y]==0)
            {
                board[x][y]=1;
                //右转
                towards = (towards + 1)%4;
            }
            switch (towards)
            {
                case 3:
                    (x)--;
                    break;
                case 1:
                    (x)++;
                    break;
                case 0:
                    (y)--;
                    break;
                case 2:
                    (y)++;
                    break;
                default:
                    break;
            }
            step++;
            display();
        }
    }
}
```

```
scanf("%d",&maxStep);
printf("Init (%d,%d), towards:%d\n",x,y,towards);
while((!judgeKnock(x,y))&&step<=maxStep)
{
    if(!judgeKnock(x, y))
    {
        if(board[x][y]==1)
        {
            board[x][y]=0;
            //左转
            towards = (towards-1+4)%4;
        }
        else if(board[x][y]==0)
        {
            board[x][y]=1;
            //右转
            towards = (towards + 1)%4;
        }
        switch (towards)
        {
            case 3:
                (x)--;
                break;
            case 1:
                (x)++;
                break;
            case 0:
                (y)--;
                break;
            case 2:
                (y)++;
                break;
            default:
                break;
        }
        step++;
        display();
    }
}
```



我们总有比一次考试更美好的事情要追求，不是吗？

比如...*Coding the world*~