**实验报告5**

**学号：**117060400123 **姓名**：黄茜洋 **班级：**应统一班**指导老师：**林卫中**实验名称**：深入python语言**实验要求：**1.掌握3种数字类型的概念和使用

2.了解3种数字类型在计算机中的表示方法

3.运用python的标准数学库进行数值计算

4.掌握字符串类型的概念和使用

5.掌握字符串类型的格式化操作方法和应用

**实验题目：**1. 利用turtle库绘制一个正方形螺旋线

2.使用print()函数输出田字格

3.羊车门问题

**算法实现：**

1．

import turtle

edge = 200

turtle.setup(500,500,-200,-200)

while edge > 5:

theta = 90

turtle.seth(theta)

turtle.fd(edge)

theta = theta - 90

turtle.seth(theta)

turtle.fd(edge)

edge = edge - 5

theta = theta - 90

turtle.seth(theta)

turtle.fd(edge)

theta = theta - 90

turtle.seth(theta)

turtle.fd(edge)

edge = edge – 5

2.

for i in range(11):

if i%5 == 0:

print("+ - - - - + - - - - +")

else:

print("| | |")

3.

from random import \*

N = 1000000

sequence = ['车','羊1','羊2']

first\_guess\_count = 0

change\_guess\_count = 0

for i in range(N):

guess = choice(sequence)

if guess == '车':

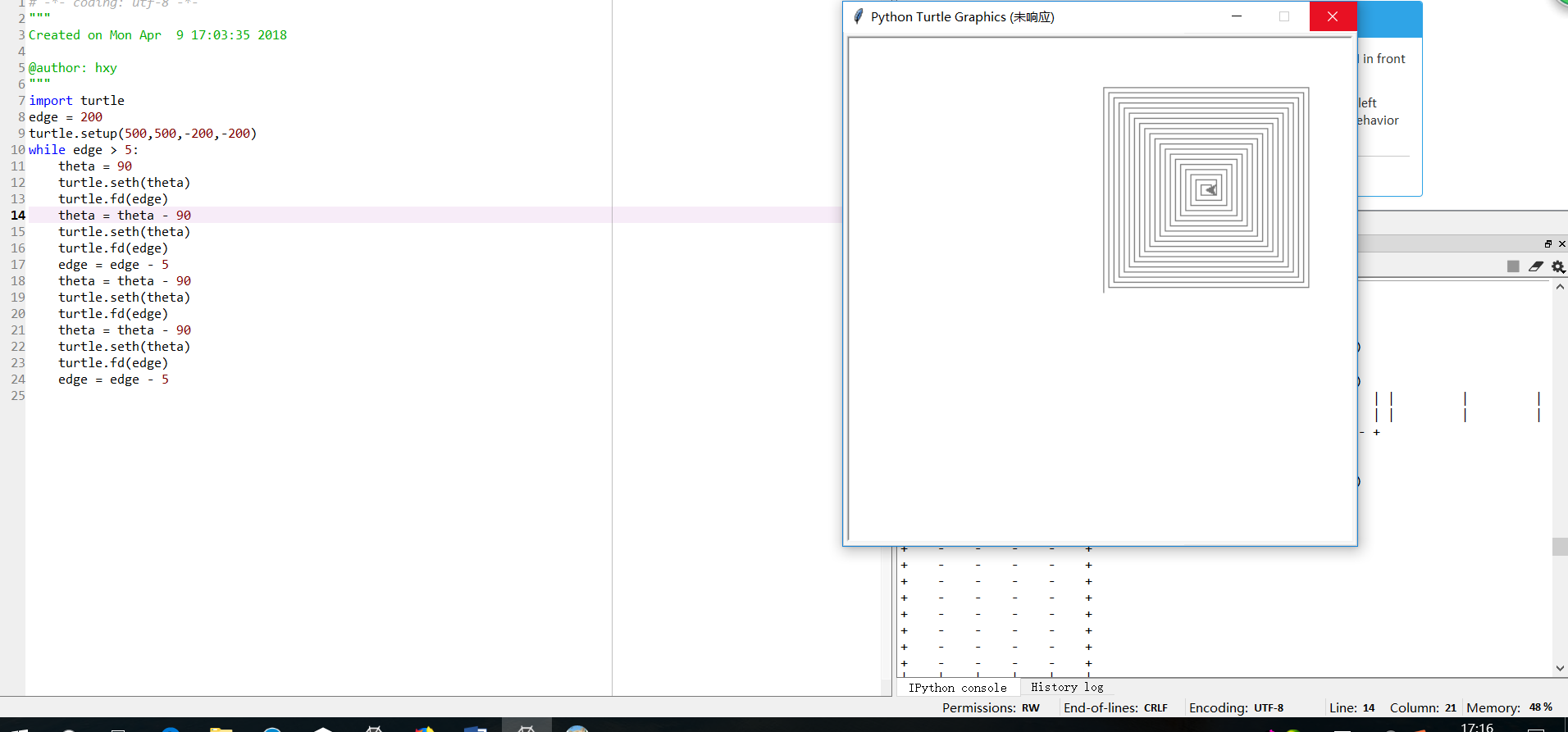
first\_guess\_count += 1

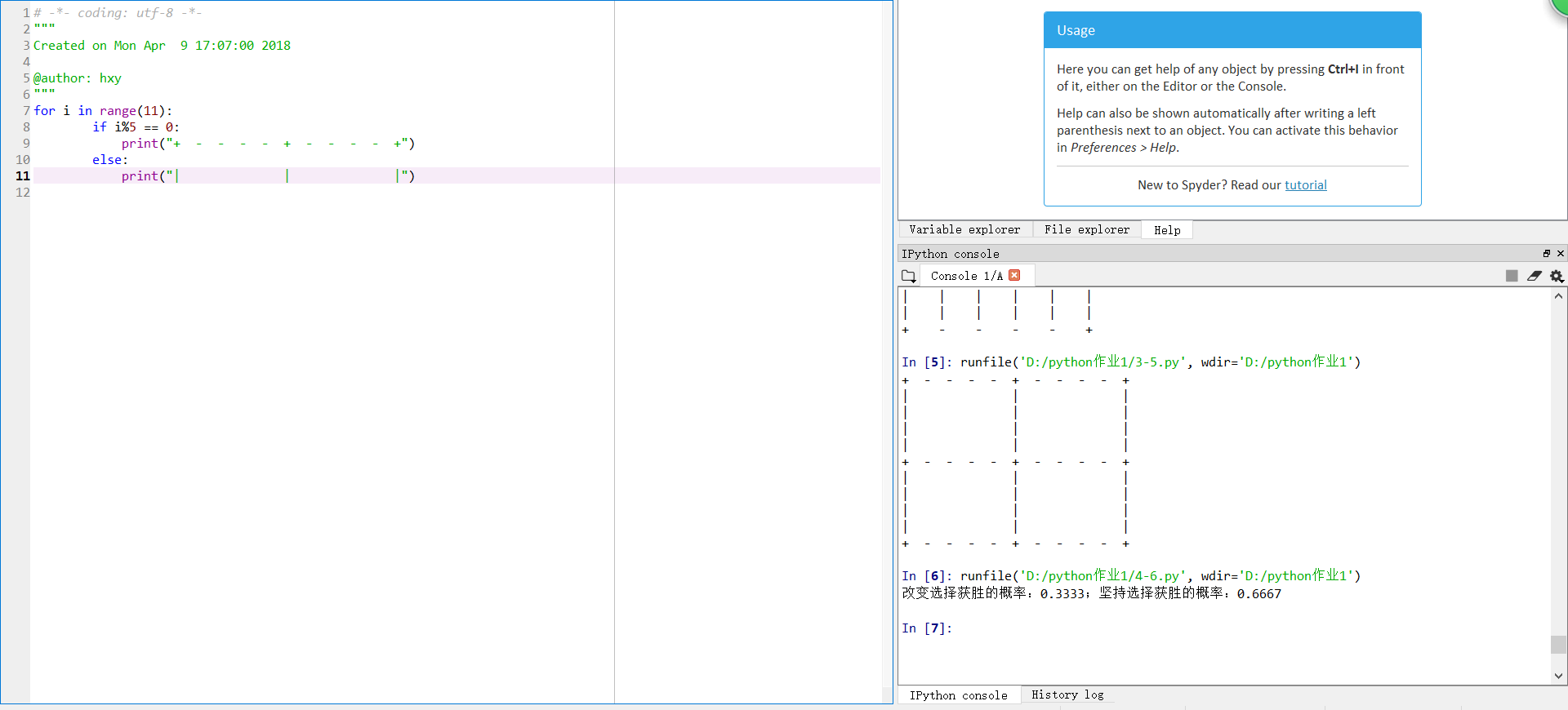
else:

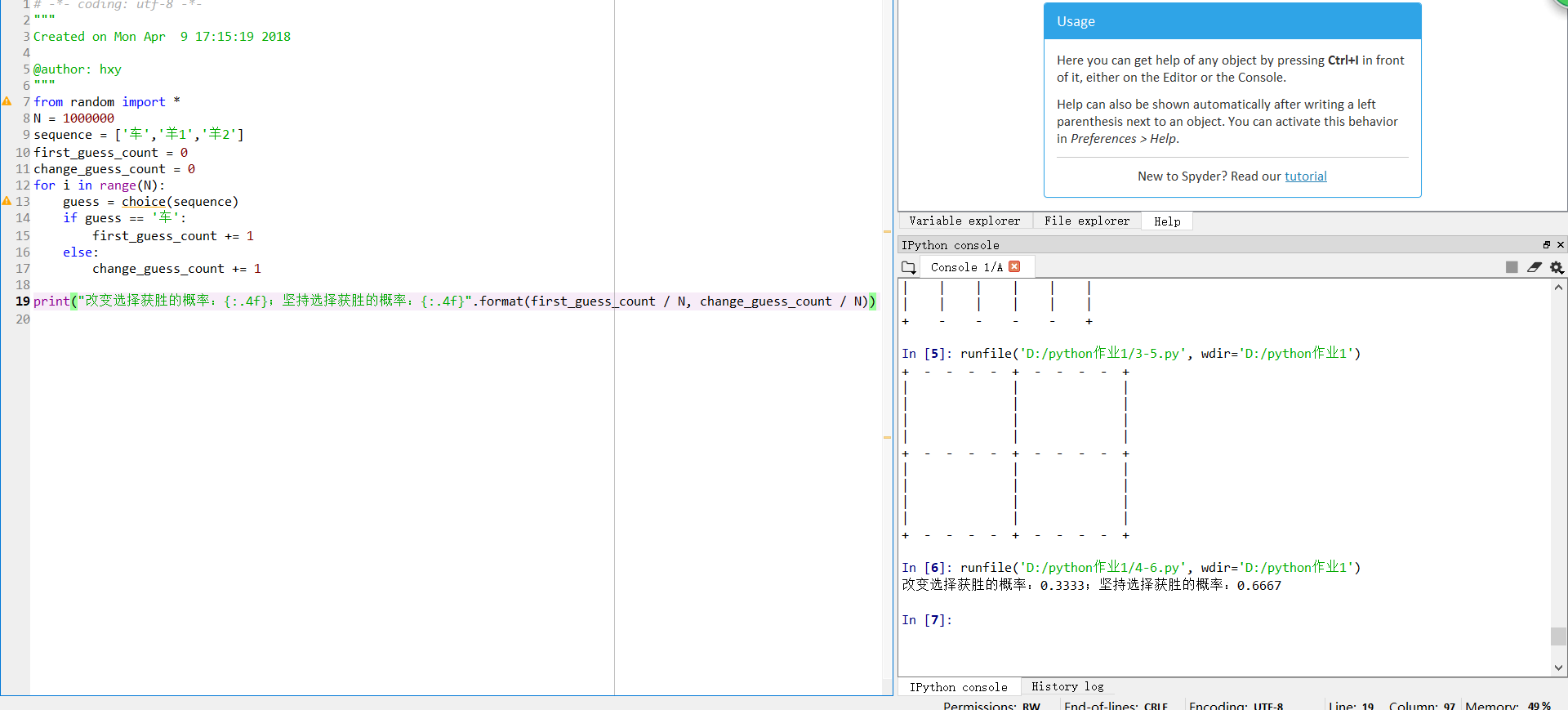
change\_guess\_count += 1

print("改变选择获胜的概率：{:.4f}；坚持选择获胜的概率：{:.4f}".format(first\_guess\_count / N, change\_guess\_count / N))

**实验结果：**

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