python 核心练习（第二章）

2-3

```
a=int(input('A='))
b=int(input('B='))
print('A-B=%d,A+B=%d\nA/B=%d,A**B=%d,A%%B=%d' %
(a-b ,a+b ,a/b,a**b,a%b))
```

2-4

（a）print(input('Enter a string:'))

（b）print(int(input('Enter a value:')))

2-5

（a）i=0

```
while i<11:
    print(i)
    i+=1
```

（b）for i in range(11):　　print(i) 2-6

```
v=int(input('Enter a number to determine positive or negative:'))
if v<0:
    print('%d is negative' % v)
elif v==0:
    print('you enter zero')
else:
    print('%d is positive' % v)
```

2-7while 循环

```
s=input('Enter a string : ')
i=0
while i<len(s):
    print(s[i])
    i+=1
```

for 循环

```
s=input('Enter a string:')
for i in s:
    print(i)
```

2-8while 循环

```
print('Enter five number')
v=[]
i=0
s=0
while i<5 :
    a=input('n%d=' % (i+1))
    v.extend([int(a)])
    s=s+v[i]
    i+=1
print(v)
print('sum=%d' % s)
```

for 循环

```
print('Enter five number')
v=[]
s=0
for i in range(5):
    a=input('n%d=' % (i+1))
    v.extend([int(a)])
    s=s+v[i]
print(v)
print('sum=%d' % s)
```

2--9

```
print('Enter five number')
v=[]
s=0
for i in range(5):
    a=input('n%d=' % (i+1))
    v.extend([int(a)])
    s=s+v[i]
print(v)
print('ave=%f' % (float(s)/len(v)))
```

2-10

```
i=1
```

```
while i:
    n=int(input('Enter a number between 1-100:'))
    if n<=100 and n>=1:
        print('Done')
        i=0
    else:
        print('Error')
```

2-11

```
while True:
    s=0
    c=int(input("'1'sum,'2'ave,'0'exit:\n"))
    if c==1:
        for i in range(5):
            n=int(input('n%d=' % (i+1)))
            s+=n
        print(s)
    if  c==2:
       for i in range(5):
            n=int(input('n%d=' % (i+1)))
            s+=n

       print(float(s/5))
```

```
    if c==0:
        break
```

2-15

```
a=int(input('a='))
b=int(input('b='))
c=int(input('c='))
n=[]
if a>b:
    a,b=b,a
if  a>c:
    a,c=c,a
if  b>c:
    b,c=c,b
n.extend([a,b,c])
print(n)
```

python 核心练习（第三章）

```
import os
ls=os.linesep
```

```
def write():
        while True:
            fname=input('Enter file name:')
            if os.path.exists(fname):
                print('Error %s already exists ' % fname)
            else:
                break
        all=[]
        print("\nEnter lines ('.' by itself to quit).\n")
        while True:
            entry=input('>')
            if entry=='.':
                break
            else:
                all.append(entry)
        fobj=open(fname,'w')
        fobj.writelines(['%s%s' % (x,ls) for x in all])
        fobj.close()
        print('Done')
def read():
        while True:
                fname=input('Enter filename:')
```

```
            if not os.path.exists(fname):
                print('sorry,%s is not exists' % fname)
            else:
                break
        try:
            fobj=open(fname,'r')
        except IOError as e:
            print("*** file open error" ,e)
        else:
            for eachline in fobj:
                print (eachline),
        fobj.close()
i=0
while i!='q':
    i=input("'r'read,'w',write,'q'quite:")
    if i=='r':
        read()
    elif i=='w':
        write()
```

python 核心 练习（第四、五章）

4-1

python 对象的三个属性，身份，类型，值（ID,type，value）

除了值之外其他两个都是只读的

如果对象支持更新操作，那么他的值就是可改变的，否 也是只读的

5-2

```
def mul(a,b):
    m=a*b
    return(m)
x=int(input('x='))
y=int(input('y='))
print(mul(x,y))
```

5-3

```
def grade(a):
        if a>100 or a<0:
            print("error,please,input your score between 1 to 100")
        elif a>=90:
            print("A")
        elif a>=80:
            print("B")
        elif a>=70:
            print("C")
        elif a>=60:
            print("D")
```

```
        else:
            print("F")
while True:
    x=int(input("Enter your score:"))
    if x==0:
        break
    else:
       grade(x)
```

5-4

```
def ly(y):
    if (y%100!=0 and y%4==0) or y%400==0:
        print('%d is leap year' % y)
    else:
        print('%d is not leap year' % y)
while True:
    x=int(input('Enter the year:'))
    if x==0:
        break
    else:
        ly(x)
```

5-5

```
def cd(m0):
```

```
    if m0<0 or m0>1:
        print('Error,请输入 0 到 1 之间的金额')
    else:
        m=m0*100
        a=m/25
        a1=m%25
        b=a1/10
        b1=a1%10
        c=b1/5
        c1=b1%5
        d=c1
        print('%f 美元=25 美分 x%d+10 美分 x%d+5 美分 x%d+1 美分 x%d' %
(m0,a,b,c,d))
while True:
    m0=float(input('请输入金额：'))
    if m0==0:
        break
    else:
        cd(m0)
```

5-6

```
while True:
```

```
    s=input('请输入要计算的式子:\n')
    if s==0:
        break
    else:
        if s.find('*')!=-1:
            ls=s.split('*')
            print(float(ls[0])*float(ls[1]))
        elif s.find('+')!=-1:
            ls=s.split('+')
            print(float(ls[0])+float(ls[1]))
        elif s.find("^")!=-1:
            ls=s.split("^")
            print(float(ls[0])**float(ls[1]))
        elif s.find('/')!=-1:
            ls=s.split('/')
            print(float(ls[0])/float(ls[1]))
        elif s.find('%')!=-1:
            ls=s.split('%')
            print(float(ls[0])%float(ls[1]))
```

5-8

```
import math
def sqcu():
```

```
    a=float(input('输入正方形或立方体的边长：'))
    print('边长为',a,'的正方形面积是',round(a*a,3))
    print('边长为',a,'立方体体积是',a**3)
def cisp():
    r=float(input('输入圆或球的半径：'))
    print('半径为',r,'的圆面积是',round(math.pi*(r**2),3))
    print('半径为',r,'的球的体积是',round(math.pi*(r**3)*4/3,3))
sqcu()
cisp()
```

5-10

```
def FtoC():
    f=float(input('输入华氏温度：'))
    c=(f-32)*(5/9)
    print(f,'华氏度等于',round(c,3),'摄氏温度')
FtoC()
```

5-11

```
def evod():
    e=[]
    o=[]
    for i in range(21):
        if i%2==0:
            e.append(i)
```

```
            else:
                o.append(i)
        print('偶数:',e,'\n 奇数:',o)
def judiv():
    a,b=int(input('enter the first number:')),int(input('enter the second number:'))
    if a%b==0:
        print(a,'能被',b,'整除')
    else:
        print(a,'不能被',b,'整除')
evod()
judiv()
```

5-13

```
def hmtom():
    hm=input("输入时间(格式'hh:mm'):")
    lhm=hm.split(':')
    m=float(lhm[0])*60+float(lhm[1])
    print(m)
hmtom()
```

5-15

```
def gcd():
    a,b=int(input('a=')),int(input('b='))
    t1,t2=a,b
```

```
    while b!=0:
        if a<b:
            a,b=b,a
        else:
            a,b=b,a%b
    print('最大公约数是%d,最小公倍数是%d' % (a,t1*t2/a))
gcd()
5-16
def payment():
    s=float(input('Enter opening balance:'))
    p=float(input('Enter monthly payment:'))
    print("Pymt#        Paid          Remaining Balance")
    print("-------       -------       -----------")
    n=0
    print(n,"               ",p,"            ",round(s,2))
    while s>=p:
        s=s-p
        n=n+1
        print(n,"               ",p,"            ",round(s,2))
        print(n,"               ",round(s,2),"            ",p)
while True:
    payment()
```

5-17

```
import random
l=[]
i=0
N=random.randint(2,100)
while i<N :
    n=random.randint(0,2**31)
    l.append(n)
    i+=1
print(l)
print('\n')
for x in range(len(l)):
    for y in range(x,len(l)):
        if l[x]<l[y]:
            l[y],l[x]=l[x],l[y]
print(l)
```