Python

Introduction

Score 5:

1.Hello World

stringy = "Hello World!"

print stringy

Score 10:

2. Raw Input

s = raw\_input()

print s

3. Arithmetic Operators

a=int(raw\_input())

b=int(raw\_input())

print a+b

print a-b

print a\*b

4. Python Division

from \_\_future\_\_ import division

a = int(raw\_input())

b = int(raw\_input())

print a//b

print a/b

5. Mod Divmod

from \_\_future\_\_ import division

a= int(raw\_input())

b=int(raw\_input())

print a//b

print a%b

print divmod(a,b)

6. Power Mod-Power

a=int(raw\_input())

b=int(raw\_input())

m=int(raw\_input())

print pow(a,b)

print pow(a,b,m)

7. Integers Come in All Sizes

a=int(raw\_input())

b=int(raw\_input())

c=int(raw\_input())

d=int(raw\_input())

print pow(a,b)+pow(c,d)

8. Loops

a= int(raw\_input())

for i in range(a):

print pow(i,2)

9. What’s your name

name = raw\_input()

lastname = raw\_input()

print "Hello %s %s! You just delved into python." %(name,lastname)

10. Finding the percentage

n = int(raw\_input())

marks={}

for i in range(0,n):

items =[x for x in raw\_input().split(" ")]

name, m1, m2, m3 = items

marks[name]=float(m1),float(m2),float(m3)

name = str(raw\_input())

a,b,c=marks[name]

d = (a+b+c)/3

print("{0:.2f}".format(d))

Score 20:

11. Print Function

from \_\_future\_\_ import print\_function

import sys

n = int(raw\_input())

map(lambda x:print(x,sep='',end='', file=sys.stdout),range(1,n+1))

Data Types

Score: 10

1.Lists

l=[]

n=int(raw\_input().strip())

commandlist=['append','extend','insert','remove','pop','index','count','sort','reverse','print']

for i in xrange(n):

commandline=[x for x in raw\_input().split(" ")]

parameters=len(commandline)

if parameters == 3:

command,a,b=commandline

elif parameters == 2:

command,a=commandline

else:

command = commandline.pop()

cvalue = commandlist.index(command)

if cvalue == 0:

l.append(int(a))

elif cvalue == 2:

l.insert(int(a),int(b))

elif cvalue == 3:

l.remove(int(a))

elif cvalue == 4:

l.pop()

elif cvalue == 5:

l.index(int(a))

elif cvalue == 6:

l.count(int(a))

elif cvalue == 7:

l.sort()

elif cvalue == 8:

l.reverse()

elif cvalue == 9:

print l

2. Tuples

import \_\_builtin\_\_

n=int(raw\_input().strip())

l = map(int,raw\_input().split(' '))

tup = tuple(l)

print hash(tup)

3. Sets – Symmetric Difference

m=int(raw\_input().strip())

a=raw\_input()

lis=a.split()

intlis=map(int,lis)

s1=set(intlis)

n=int(raw\_input().strip())

a=raw\_input()

lis=a.split()

intlis=map(int,lis)

s2=set(intlis)

l1=list(s1.difference(s2))

l2=list(s2.difference(s1))

l1=l1+l2

l1.sort()

for i in l1:

print i

4. List Comprehensions

a=int(raw\_input())

b=int(raw\_input())

c=int(raw\_input())

n=int(raw\_input())

l=[[x,y,z] for x in range(0,a+1) for y in range(0,b+1) for z in range(0,c+1)]

ll=[[x,y,z] for [x,y,z] in l if x+y+z != n]

print ll

5. Find de second largest number

n=int(raw\_input().strip())

a=raw\_input().split()

l=map(int,a)

l.sort()

x=l.pop()

y=l.pop()

while( y>=x ):

y=l.pop()

print y

String Challenges

Score: 10

1.Swap Case

print raw\_input().swapcase()

2. String Split and Join

a=raw\_input().split(" ")

a="-".join(a)

print a

Math

Score: 20

4.Triangle Quest

for i in range(1,input()): #More than 2 lines will result in 0 score. Do not leave a blank line also

print i\*(10\*\*i-1)/9