Basic Programs:

Run some python programs on Pi like:

a) Read your name and print Hello message with name

```
name = input('What is your
name?\n') print ('Hello %s.' %
name)
```

b) Read two numbers and print their sum, difference, product and division.

```
num1 = int(input("Enter First Number: "))
num2 = int(input("Enter Second Number:
"))

print("Enter which operation would you like to perform?")
ch = input("Enter any of these char for specific operation +,-,*,/: ")

result =
0 if ch
== '+':
   result = num1 +
num2 elif ch == '-':
   result = num1 -
num2 elif ch == '*':
   result = num1 *
num2 elif ch == '/':
   result = num1 /
num2 else:
   print("Input character is not

recognized!") print(num1, ch , num2, ":",

result)
```

c) Word and character count of a given string.

```
word_count = 0
char_count = 0
usr_input = input("Enter a string :
") split_string = usr_input.split()
word_count = len(split_string)
for word in split_string:
   char_count +=
```

```
    len(word)
print("Total words : {}".format(word_count))
print("Total characters :
{}".format(char_count))
```

d) Area of a given shape (rectangle, triangle and circle) reading shape and appropriate values from standard input.

```
width = float(input('Please Enter the Width of a Rectangle: '))
height = float(input('Please Enter the Height of a Rectangle: '))

# calculate the
area Area = width
* height

# calculate the Perimeter
Perimeter = 2 * (width +
height)
print("\n Area of a Rectangle is: %.2f" %Area)
print(" Perimeter of Rectangle is: %.2f"
%Perimeter)
```

Python Program:

```
# Python Program to find the area of triangle
# Three sides of the triangle a, b and c are provided by the user

a = float(input('Enter first side: '))
b = float(input('Enter second
side: ')) c = float(input('Enter
third side: '))

# calculate the semi-
perimeter s = (a + b + c) /
2

# calculate the area
area = (s*(s-a)*(s-b)*(s-c)) ** 0.5
print('The area of the triangle is %0.2f' %area)
# Python Program to find Diameter, Circumference, and Area of a Circle

PI = 3.14
radius = float(input(' Please Enter the radius of a circle: '))

diameter = 2 * radius
```

```
circumference = 2 * PI *
radius area = PI * radius *
radius

print(" \n Diameter of a Circle = %.2f" %diameter)
print(" Circumference of a Circle = %.2f" %circumference)
print(" Area of a Circle = %.2f" %area)
```

Combined Python Program:

```
#Area
print("Select one of the following:")
print("1. Rectangle\n2. Triangle\n3.
Circle") s=input("Enter your choice: ")
if s=='1':
 x=int(input("Enter
 length:"))
 y=int(input("Enter
 breadth:"))
 print("Area={}".format(x*
 y))

elif s=='2':
 x=int(input("Enter
 base:"))
 y=int(input("Enter
 height:"))
 print("Area={}".format(0.5*x*y))

elif s=='3':
 x=int(input("Enter
 radius:"))
 print("Area={}".format(3.14*x*x))

else:
 print("Enter a valid choice")
```

e) Print a name 'n' times, where name and n are read from standard input, using for and while loops.

Python Program (Using For Loop):

```
i=1
print ("enter the
```

```
name")
name=raw_input()
print ("enter the no of time" )
num=raw_input()
#print
(type(num))
num=int(num)
for i in
   range(1,num+1):
   print (i , name)
   i=i+1
```

Python Program (Using While Loop):

```
print ("enter the name")
name=raw_input()
print ("enter the no of time" )
num=raw_input()
print
(type(num))
num=int(num
) i=1
while(i<=num
):
   print
   (name)
   i=i+1
```

Python Program (Without Loop):

```
def name(n):
        if n != 0:
                name(n-1)
                print("Name")
name(10)
```

f) Handle Divided by Zero Exception.

```
print ("enter two no n1 and n2")
n1=raw_input()
n2=raw_input()
n1=int(n1)
n2=int(n2)
try:
   div=n1/n2
```

```
    print
    (div)
except ZeroDivisionError:
    print ("zero division is

handled") print ("out of try

catch block ")
```

#DivideByZero Exception

```
x=int(input("First
No:"))
y=int(input("Second
No:")) try:
 print("x/y={}".format(x/y))
except Exception:
 print("DivideByZero Exception")
```

g) Print current time for 10 times with an interval of 10 seconds.
Read a file line by line and print the word count of each line.

Python Program:

```
import time
for i in range(1,11):
    zz=time.asctime(time.localtime(time.time()))
    zz=zz[11:19]
    print (zz)
    print
    (time.asctime(time.localtime(time.time())))
    time.sleep(10)
```

Python Program:

```
#Current time 10
times import
datetime import
time
for i in range(0,10):
 print(datetime.datetime.now().time())
 time.sleep(10)
```