Python Programs for Practice

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1. Write a Python Program to read and print integer,float and string

```
x = int(input("Enter Integer : "))
print("Entered integer value is:",x)

y = float(input("Enter Floating point Number"))
print("\n Entered floating point value is : ",y)

s = input("Enter String : ")
print("\n Entered string is : ",s)
```

```
Enter Integer : 12
Entered integer value is: 12
Enter Floating point Number2.345

 Entered floating point value is :  2.345
Enter String : abcdef

 Entered string is :  abcdef
```

2. Write a Program to perform addition , subtraction , multiplication ,division ,modulor division and exponentiation.

```
x,y = input("Enter two values").split()
x = int(x)
y = int(y)

print(" Sum = {}".format(x+y))
print(" Diff = {}".format(x-y))
print(" Prod = {}".format(x*y))
print(" Div = {}".format(x/y))
print(" MOD Div = {}".format(x%y))
print(" Exponent = {}".format(x**y))
```

```
Enter two values1 2
 Sum = 3
 Diff = -1
 Prod = 2
 Div = 0.5
 MOD Div = 1
 Exponent = 1
```

3.What is the output of the following programs

3.1

```
x = 4
y = x + 1
x = 2
print(x,y)
```

3.2

```
x, y = 2, 6
x, y = y, x + 2
print(x, y)
```

3.3

```
x = 1
def f():
    return x

print(x)

print(f())
```

3.4

```
x = 1
def f():
    x = 2
    return x
print(x)
print(f())
print(x)
```

3.5

```
x = 2
def f(a):
    x = a * a
    return x
y = f(3)
print(x, y)
```

3.6

```
cube = lambda x: x ** 3
print(cube(3))
```

3.7

```
print(2 < 3 and 3 > 1)
print(2 < 3 or 3 > 1)
print(2 < 3 or not 3 > 1)
print(2 < 3 and not 3 > 1)
```

3.8

```
x = 4
y = 5
p = x < y or x < z
print (p)
```

3.9

```
x = 2
if x == 2:
    print (x)
else:
    print(y)
```

3.10

```
import math
math.sqrt(4)
```

```
x = [0, 1, [2]]
x[2][0] = 3
print(x)
x[2].append(4)
print(x)
x[2] = 2
print(x)
```

3.11

```
x = zip(["a", "b", "c"], [1, 2, 3])
print(list(x))
x = zip(["a", "b", "c"], [1, 2, 3])
print(set(x))
x = zip(["a", "b", "c"], [1, 2, 3])
print(dict(x))
x = zip(["a", "b", "c"], [1, 2, 3])
print(tuple(x))
```

```
[('a', 1), ('b', 2), ('c', 3)]
{('a', 1), ('b', 2), ('c', 3)}
{'a': 1, 'b': 2, 'c': 3}
(('a', 1), ('b', 2), ('c', 3))
```

```
x = sum([1, 2, 3])
print(x)
a = [2, 10, 4, 3, 7]
a.sort()
print(a)
a.reverse()
print(a)
b= [1,3,2,5,4]
print(sorted(b))
print(b)
```

```
6
[2, 3, 4, 7, 10]
[10, 7, 4, 3, 2]
[1, 2, 3, 4, 5]
[1, 3, 2, 5, 4]
```

4. 1 Execute the following Programs

```
def square(x):
    return x * x
y=map(square, range(5))
list(y)
```

```
[0, 1, 4, 9, 16]
```

```
def even(x):
    return x %2 == 0
f=filter(even, range(10))
list(f)
```

```
[0, 2, 4, 6, 8]
```

4.2 Execute the following programs

```
x = enumerate(["a", "b", "c"])
list(x)
```

```
[(0, 'a'), (1, 'b'), (2, 'c')]
```

```
for index, value in enumerate(["a", "b", "c"]):
    print(index, value)
```

```
0 a
1 b
2 c
```

Practice More in Free Time