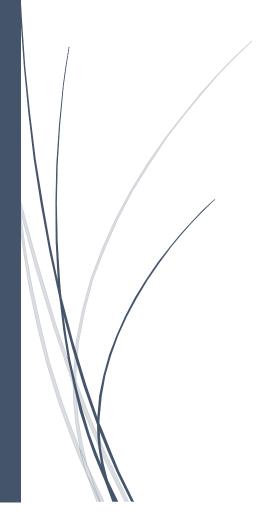
# Floxus Education

7/3/2021

Python
Bootcamp101

Assignment 1



1. Write a program to check a number is even or odd using bitwise operator?

#### **Program:**

```
N = int(input("Enter Number: "))
if N & 1:
    print(N, "is an odd number.")
else:
    print(N, "is an even number.")
```

2. Write a program to calculate 2<sup>x</sup> using bitwise operator?

### **Program:**

```
n = int(input("Enter power of two: "))
powerOfTwo = 2 << (n-1)
print(powerOfTwo)</pre>
```

3. Write a program to print the following number pyramid?

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

#### **Program:**

```
n = 5
num = 1
for i in range(0, n):
    num = 1
    for j in range(0, i + 1):
        print(num, end=" ")
        num += 1
    print("\r")
```

4. Write a program to print the inverted pyramid?

# **Program:**

```
n = 5
for i in range(5, 0, -1):
    for j in range(i, 0, -1):
        print("*", end=" ")
        print("\r")
```

5. Write a program to print the full pyramid?

## **Program:**

```
n = 5
k = 0
for i in range(1, n + 1):
    for j in range(1, (n - i) + 1):
        print(end=" ")
    while k != (2 * i - 1):
        print("*", end=" ")
        k += 1
        k = 0
        print("\r")
```

6. Write a program to print Floyds Triangle?

```
1 2 3 4 5 6 7 8 9 10
```

### **Program:**

```
n = 4
num = 1
for i in range(0, n):
    for j in range(0, i + 1):
        print(num, end=" ")
        num += 1
        print("\r")
```

7. Write a program to find the sum of first N natural number using for loop?

### **Program:**

```
n = int(input("Enter the natural number: "))
sum = 0
for i in range(1, n + 1):
    sum += i
print("Sum of natural numbers from 1 to", n, "is", sum)
```

8. Write a program to print all the digits of a number?

```
SAMPLE INPUT

321
486

SAMPLE OUTPUT

3 2 1
4 8 6
```

### **Program:**

```
while(1):
    m = int(input())
    x = str(m)
    length = len(x)
    for i in x:
```

```
print(i, end =" ")
print("\r")
```

9. Write a program to check whether a number is prime or not?

## **Program:**

```
n = int(input("Enter number: "))
if n == 0 or n == 1:
    print(n, "is neither prime nor composite number.")
elif n > 1:
    for i in range(2, int(n // 2) + 1):
        if (n % i) == 0:
            print(n, "is not a prime number.")
            break
    else:
        print(n, "is a prime number.")
else:
    print(n, "is not a prime number.")
```

10. Write a program to print Binary representation of a given number N.

### **Program:**

```
n = int(input())
binary = 0
count = 0
while (n != 0):
  rem = n % 2
  power = pow(10, count)
binary += rem * power
```

```
n //= 2
count += 1
```

print(binary)

<u>Click here</u> to see the code.