

Q1



Assignexample1.py

```

1 x=int(input("x: "))
2 y=int(input("y: "))
3
4 print("x += y: x = {0} and y = {1}".format(x+y,y))
5 print("x -= y: x = {0} and y = {1}".format(x-y,y))
6 print("x *= y: x = {0} and y = {1}".format(x*y,y))
7 print("x /= y: x = {0} and y = {1}".format(x/y,y))
8 print("x **= y: x = {0} and y = {1}".format(x**y,y))
9 print("x //= y: x = {0} and y = {1}".format(x//y,y))
10 print("x %= y: x = {0} and y = {1}".format(x%y,y))
11 print("x = y: x = {0} and y = {1}".format(y,y))

```

ide.
a

Q2



Assignexample2.py

```

1 # Assignment Operators =, +=, -=, *=
2 x=int(input("x: "))
3 y=int(input("y: "))
4 print("x = y: {0}".format(y))
5 print("x += y: {0}".format(x+y))
6 print("x -= y: {0}".format(x-y))
7 print("x *= y: {0}".format(x*y))

```

rint to

Q3



Assignexample3.py

```

1 # Assignment Operators /= , %=, **=, //=
2 a = int(input("x: "))
3 b = int(input("y: "))
4 print('x /= y:' , a/b)
5 print ('x %= y:' , a%b)
6 print ('x **= y:' , a**b)
7 print ('x //= y:' , a//b)

```

), print

Q1



- ☒ In (NOT) ~ Bits that are 0 become 1, and those that are 1 become 0.
- ☐ Numbers can be used in only one form.
- ☐ Bitwise Operators take Two operands and operate them together.

Q2

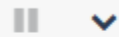


Bitopexample2.py

```
1 #Program to illustrate bit wise operators >>, <<
2 x=int(input("x: "))
3 y=int(input("y: "))
4 print("{0} >> {1} is {2}".format(x,y,x>>y))
5 print("{0} << {1} is {2}".format(x,y,x<<y))
6
```

sole,

Q3



Bitopexample3.py

```
1 #Program to illustrate the bitwise operators &, |
2 x=int(input("x: "))
3 y=int(input("y: "))
4
5 print("{0} & {1}: {2}".format(x,y,x&y))
6 print("{0} | {1}: {2}".format(x,y,x|y))
```

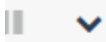
e, the

Q4



- ☒ One's complement converts 0's into 1's and 1's into 0's.
- ☐ One's complement is represented with @ symbol.
- ☐ If the binary number is 100110 then its one's complement is 011101.
- ☒ One's complement of the short int value 2 is 11111101.

Q5



the

Bitopexample4.py

```
1 #Program to illustrate bitwise operators ~, ^
2 x=int(input("x: "))
3 y=int(input("y: "))
4
5 print("~ {0}: {1}".format(x,~x))
6 print("{0} ^ {1}: {2}".format(x,y,x^y))
```

Q6



print

Bitopexample1.py

```
1 x=int(input("x: "))
2 y=int(input("y: "))
3
4 print("{0} >> {1} is {2}".format(x,y,x>>y))
5 print("{0} << {1} is {2}".format(x,y,x<<y))
6 print("{0} & {1} is {2}".format(x,y,x&y))
7 print("{0} | {1} is {2}".format(x,y,x|y))
8 print("~ {0} is {1}".format(x,~x))
9 print("{0} ^ {1} is {2}".format(x,y,x^y))
```

Q7



TwoCompliment.py

```
1 x=int(input("num1: "))
2 y=int(input("num2: "))
3
4 print("difference: {0}".format( ((~y)+1) - ((~x)+1)))
```