

Q. Declare an int value and store it in a variable.
Check the type and print the id of the same.

Q. Take one int value between 0 - 256.
Assign it to two different variables.
Check the id of both the variables. It should come the same. Check why?

Q. Take one int value either less than -5 or greater than 256.
Assign it to two different variables.
Check the id of both the variables. It should come different. Check why?

Q. Arithmetic Operations on integers
Take two different integer values.
Store them in two different variables.
Do below operations on them:-
 Find sum of both numbers
 Find difference between them
 Find the product of both numbers.
 Find value after dividing first num with second number
 Find the remainder after dividing first number with second number
 Find the quotient after dividing first number with second number
 Find the result of the first num to the power of the second number.

Q. Comparison Operators on integers
Take two different integer values.
Store them in two different variables.
Do below operations on them:-
 Compare se two numbers with below operator:-
 Greater than, '>'
 Smaller than, '<'
 Greater than or equal to, '>='
 Less than or equal to, '<='
Observe their output(return type should be boolean)

Q. Equality Operator
Take two different integer values.
Store them in two different variables.
Equate them using equality operators (==, !=)
Observe the output(return type should be boolean)

Q. Logical operators
Observe the output of below code

Cross check the output manually

```
print(10 and 20)
#----->Output is 20
print(0 and 20)
#----->Output is 0
print(20 and 0)
#----->Output is 0
print(0 and 0)
#----->Output is 0

print(10 or 20)
#----->Output is 10
print(0 or 20)
#----->Output is 20
print(20 or 0)
#----->Output is 20
print(0 or 0)
#----->Output is 0

print(not 10)
#----->Output is False
print(not 0)
#----->Output is True
```

Q. Bitwise Operators

Do below operations on the values provided below:-

```
Bitwise and(&) -----> 10, 20
-----> Output is 0
Bitwise or(|) -----> 10, 20
-----> Output is 30
Bitwise(^) -----> 10, 20
-----> Output is 30
Bitwise negation(~) -----> 10
-----> Output is -11
Bitwise left shift -----> 10,2
-----> Output is 40
Bitwise right shift -----> 10,2
-----> Output is 2
```

Cross check the output manually

Q. What is the output of expression inside print statement. Cross check before running the program.

```

a = 10
b = 10
print(a is b)           #True or False?
print(a is not b)       #True or False?

```

```

a = 1000
b = 1000
print(a is b)           #True or False?
print(a is not b)       #True or False?

```

Q.What is the output of expression inside print statement. Cross check before running the program.

```
print(10+(10*32)//2**5&20+ (~(-10))<<2)
```

Q.Membership operation

in, not in are two membership operators and it returns boolean value

```

print('2' in 'Python2.7.8')
print(10 in [10,10.20,10+20j,'Python'])
print(10 in (10,10.20,10+20j,'Python'))
print(2 in {1,2,3})
print(3 in {1:100, 2:200, 3:300})
print(10 in range(20))

```

Q.An integer can be represented in binary, octal or hexadecimal form. Declare one binary, one octal and one hexadecimal value and store them in three different variables.
Convert 9876 to its binary, octal and hexadecimal equivalent and print their corresponding value.

Q.What will be the output of following:-

```

a = 0b1010000
print(a)

```

```

b = 0o7436
print(b)

```

```

c = 0xfade
print(c)

```

```
print(bin(80))
```

```
print(oct(3870))
```

```
print(hex(64222))
```

```
print(bin(0b1010000))
```

```
print(bin(0xfade))
```

```
print(oct(0xfade))
```

```
print(oct(0o7436))
```

```
print(hex(0b1010000))
```

```
print(hex(0xfade))
```