



Assignment operators

when set variable to be equal to something

```
>>> region="North"
```

```
>>> firstName="Tony"
```

```
>>> sales=30000
```

```
>>> serialNumber="533444"
```

```
>>> itemReceived=False
```

```
>>> itemsOrdered=["Snowblower", "Grassblower", "EggThrower"]
```

Comparison Operators

a=15

b=25

c=15

print(a==b) // False

print(a==c) // True

print(a > c) // False

print(a >= c) // True

print(a != c) // False

Logical operators

- ① **and** — Both sides ^{of comparison} must be true
- ② **or** — one side must be true
- ③ **not** — Takes a condition checks for opposite

```
a=15
b=25
c=15
d=20
```

```
print(a==c and a!=c)    // False
print(a==b and b==c)    // False
print(a==b or b==c)     // False
print(not a ==b or b ==c) // True
print(a==c and b!=c)    // True
```

Precedence

not > and > or not and or & & &
 ! & | // mnemonic

AND Comparison operators (==, etc)
 are higher in precedence

Print(not a == b or b == c)

Print(not (a == b) or (b == c))

, /r. . \

Print (not False) or False)

Print (True or False) // True

Arithmetic

a=8
b=3

```
print (2+3*4-5)    // 9
print (2+3*4-5%2)   // 13
print (2+3*4**2-5%2) // 49
```

Note

Multiply, divide, %, higher precedence than +, -
exponentiation higher still

Precedence
<>
**
unary
* ~ %
+ -

Identity operator (is)

— do two operators have the same id

Containment

```
sales = [30000, 32000, 25000]
```

```
print(25000 in sales) // True
```

```
quote = "Turn do it "
```

```
print("do" in quote) // True
```

```
print("did" in quote) // False
```


Domain 1 Exam Tips

- ① Python (loosely or weakly typed)
 - variables do not need to be declared with a data type before use
- ② String variables can have single or double quotes
- ③ Type casting may be needed to concatenate a string with a number
- ④ Lists are to Python what arrays are to other languages
- ⑤ Python is zero-based
- ⑥ Order of operations (precedence)
- ⑦ People expect more rules ++ S-X // People EXPECT ...