

Python

# Logical Operators

Albert Zaqaryan Lesson 6

# Logical Operators

and

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and

Returns True if both statements are true

`x = 4`    `x < 5 and x < 10`    Output: True

# Logical Operators

and

Returns False if both statements are false

$x = 4$      $x < 5$  and  $x > 10$     Output: False

# Logical Operators

or

# Logical Operators

or

Returns True if one of the statements are True

$x = 4$      $x < 5$  or  $x > 10$     Output: True

# Logical Operators

or

Returns False if two of the statements are False

`x = 4`   `x > 5 or x > 10`   Output: False

# Logical Operators

not



# Logical Operators

## not

Reverse the result, returns False if the result is True

`x = 4`    `not(x < 5 or x < 10)`    Output: False

# Boolean operators

There are **three boolean operators** in python:

Boolean operator	Boolean operation		Result
and	False	and False	False
	True	and True	True
	True	and False	False
or	False	or False	False
	True	or True	True
	True	or False	True
not		not True	False
		not False	True

is  
is not

is

Returns true if both variables are the same object

is not

Returns true if both variables are not the same object

in  
not in

# Python Membership Operators

in

Returns True if a sequence with the specified value is present in the object

not in

Returns True if a sequence with the specified value is not present in the object

```
id  
x=5  
print(id(x))
```

1. Write a python program to check have your name 'a' or no. You have 2 input.
2. Write a python program to check if there are bananas, oranges and apples in your fridge:



3. Given a number x. Check following conditions:
  - x is less or equal to -8 or x is greater than 12
  - x is greater than 10 and is less or equal to 50
  - x is greater than -10 and is less than 10
  - x isn't equal to 20 or x is greater than 50Print the results (they should be True or False)

4. Write a python program to check if there are bananas, oranges and apples in your fridge, and if you don't have one of them you should go buy this , and check have you at home light if not, take those items out of the fridge: