

Take a look over the following questions. This lecture should help you answer each of them. We recommend you write down answers as you learn them.

1. what are the three ways we'll run Python code this semester?

interactive mode, script mode, notebook mode

2. which way of running Python requires us to use print(...) to see results?

script mode

3. four common types in Python are:

- i integer
- f float
- s string or str
- b boolean or bool

4. which operators are highest precedence (box them)? Lowest (circle them)?

- logical **lowest**
- comparison
- mathematical **highest**

5. how can we multiply two numbers in Python?

- 2 x 3 **no**
- 2 * 3 **yes**
- (2)(3) **no**

6. how do we check whether two values are equal to each other in Python?

- 1 + 1 = 2 **no**
- 1 + 1 == 2 **yes**
- 1 + 1 equals 2 **no**

7. how can we print this message? [circle all that apply]

the dog said "roof"

- no** • print(the dog said "roof")
- no** • print("the dog said "roof"")
- print('the dog said "roof"') **yes, you can put one kind of quotes inside another**
- print("the dog said \"roof\"") **yes, uses \" for quotation mark**

8. where should we add parentheses to get 16?

-4 ** 2 (-4)**2

9. what is the value of the following?

not not True True

Modular Arithmetic: what do each of the following evaluate to?

$0 \% 3$ 0
 $1 \% 3$ 1
 $2 \% 3$ 2
 $3 \% 3$ 0
 $4 \% 3$ 1
 $5 \% 3$ 2
 $6 \% 3$ 0

$11 / 4$ 2.75
 $11 // 4$ 2
 $11 \% 4$ 3

$(3 - 1 + 12) \% 12 + 1$
 (14) % 12 + 1
 2 + 1
 3

$(3 - 1 + 14) \% 12 + 1$
 16 % 12 + 1
 4 + 1
 5

Boolean Logic: what do each of the following evaluate to?

$2 > 1$ True

$2 > 1 == \text{True}$ True

$\text{not } (3 < 1 \text{ or } 3 > 10)$ True

$\text{not } (3 < 1) \text{ and } \text{not } (3 > 10)$

$3 >= 1 \text{ and } 3 <= 10$ True

this is True

$1+2 == 1 \text{ or } 1+2 == 2 \text{ or } \underline{1+2 == 3} \text{ or } 1+2 == 4 \text{ or } 1+2 == 5$ True

this is False

$1+1 == 2 \text{ and } 2+2 == 4 \text{ and } \underline{3+3 == 100} \text{ and } 4+4 == 8$ False

Questions?

Please post on Piazza

if a statement has a series of ORs, then just one needs to be True for the entire statement to be True
if a statement has a series of ANDs, then just one needs to be False for the entire statement to be False