## Key Concepts:

Warning: this list is not comprehensive!

- Control Flow: if, elif, else
- Comparison Operators: !=, ==, >, <, >=, <=, operation chaining
- Logical Operators & Precedence: not, and, or
- Membership Operators: in, not in
- Identity Operators: is, is not, id()
- Order of Precedence: (), arithmetic, comparison + membership, logical
- Code Blocks: indentation



## Discussion Questions:

1. Evaluate the following expression:

7 // 2 != 1 or 2 == 8 % 3 and not 5 is not 5 and 1 < 3 / 2 < 1.5

2. Write a program to print the string with the last letter deleted if the delete boolean is True and print the string with the first letter deleted if the delete boolean is False.

```
Here's what I came up with. Do you like my solution? If not, provide a better solution.
```

```
string = "zoom memes for self-quaranteens"
del = True
if del = True
string.pop
else if del = False
string.pop(0)
print string
```

3. What does the following script print?

```
x = 10
y = x
x += 5
a = ['where', 'is', 'the', 'lamb']
b = a
a.append('sauce')
print(x is y and a is b)
print(id(x) == id(y) and id(a) == id(b))
```

## 4. Quickfire Questions! True or False?

a) 'happiness' is not in 'quarantine' b) 'zoom' in [['zoom', 'zoom', 'zoom']] c) True in [8 is 8, "True"] d) False in [0] e) 2020 < 2021 < 2022 < 2023 f) 3 in [int(1.5) + int(1.5), -1 % 3, 6 / 2] g) "zz" in "zoomzoomzoom"

5. Write a python script, roshambo.py, that takes in two inputs from the keyboard, player1\_move and player2\_move, and outputs which player wins that round of rock-paper-scissors according to the game's rules. #Recall that 'paper' beats 'rock', 'scissors' beats 'paper', #and 'rock' beats 'scissors'

#Example 1: >>> Player 1, enter your move: rock >>> Player 2, enter your move: scissors >>> Player 1's rock beats player 2's scissors!

#Example 2: >>> Player 1, enter your move: paper >>> Player 2, enter your move: paper >>> Player 1's paper ties with player 2's paper!

#Example 3: >>> Player 1, enter your move: gordon >>> Player 2, enter your move: ramsay >>> ERROR! Please only enter the values `rock', `paper', or `scissors' CMPSC 8: Introduction to Computer Science Alex Mei | Spring, 2020

6. Edit your roshambo.py file to implement an extended version of the RPS game: Rock, Paper, Scissors, Lizard, Spock. The rules to the game are explained in the origins of the game from The Big Bang Theory: <u>https://www.youtube.com/watch?v=x5Q6-wMx-K8</u>. They are also listed in the graphic below.

