Python course materials

# Advanced Python Objects Test

## Advanced Numbers

**Problem 1: Convert 1024 to binary and hexadecimal representation**

print(bin(1024))  
print(hex(1024))

0b10000000000  
0x400

**Problem 2: Round 5.23222 to two decimal places**

round(5.23222,2)

5.23

## Advanced Strings

**Problem 3: Check if every letter in the string s is lower case**

s = 'hello how are you Mary, are you feeling okay?'  
  
s.islower()

False

**Problem 4: How many times does the letter ‘w’ show up in the string below?**

s = 'twywywtwywbwhsjhwuwshshwuwwwjdjdid'  
s.count('w')

12

## Advanced

**Problem 5: Find the elements in set1 that are not in set2:**

set1 = {2,3,1,5,6,8}  
set2 = {3,1,7,5,6,8}  
  
set1.difference(set2)

{2}

**Problem 6: Find all elements that are in either set:**

set1.union(set2)

{1, 2, 3, 5, 6, 7, 8}

## Advanced Dictionaries

**Problem 7: Create this dictionary: {0: 0, 1: 1, 2: 8, 3: 27, 4: 64} using a dictionary comprehension.**

{x:x\*\*3 for x in range(5)}

{0: 0, 1: 1, 2: 8, 3: 27, 4: 64}

## Advanced Lists

**Problem 8: Reverse the list below:**

list1 = [1,2,3,4]  
  
list1.reverse()  
  
list1

[4, 3, 2, 1]

**Problem 9: Sort the list below:**

list2 = [3,4,2,5,1]  
  
list2.sort()  
  
list2

[1, 2, 3, 4, 5]

# Great Job!