

### 0.0.1 Question One

Write a method to calculate the area of a circle when given its radius. Use  $\pi$  rounded to three digits (3.142).

```
[1]: #Question One

def findArea(r):

    pi = 3.142

    area = pi * (r * r)

    print("Area of a circle with a radius equal to {} is {}".format(r, area))

findArea(5)
```

Area of a circle with a radius equal to 5 is 78.55

### 0.0.2 Question Two

Use the ord() method to write a function that returns the ascii value of a given character.

```
[2]: #Question Two

def findAscii(character):

    print("The Ascii value of {} is {}".format(character, ord(character)))

findAscii('c')
```

The Ascii value of c is 99

### 0.0.3 Question Three

Given a positive integer N, find the sum of the squares up of the natural numbers up to and including N.

Example: When  $N = 5$ , the sum of the squares will be  $1^2 + 2^2 + 3^2 + 4^2 + 5^2 = 1+4+9+16+25 = 55$

```
[3]: #Question Three

def sumOfSquares(n):

    sum = 0

    for i in range(1, n+1):

        x = i * i
```

```

        sum = sum + x

    print("The sum of squares up to (and including) {} is {}".format(n, sum))

sumOfSquares(6)

```

The sum of squares up to (and including) 6 is 91

#### 0.0.4 Question Four

Given a list of integers, determine which elements are negative and print them. If no elements are negative then print a message stating so. Be sure to check the empty list!

Example Lists:     [1, 2, 3, 4, 5]     [-1, 2, -3, 4, -5]     [0, -19854, 2342, 1246, -19203]

```

[4]: #Question Three

def findNegatives(integerList):

    if len(integerList) == 0:

        print("There are no elements in this list")
        return

    negativeCheck = 0

    for num in integerList:

        if num < 0:

            print("{} ".format(num), end='')
            negativeCheck = negativeCheck + 1

    if negativeCheck < 1:

        print("All the elements of the given list were positive")

    else:

        print()

list1 = [1, 2, 3, 4, 5]
list2 = [-1, 2, -3, 4, -5]
list3 = [0, -19854, 2342, 1246, -19203]
list4 = []

findNegatives(list1)
findNegatives(list2)

```

```
findNegatives(list3)
findNegatives(list4)
```

All the elements of the given list were positive

-1 -3 -5

-19854 -19203

There are no elements in this list

### 0.0.5 Question Five

Without using any built-in methods, remove the letters from a string from a given index.

String: "I am a string to have characters removed"

```
[5]: #Question Five

def removeFromString(index, string):

    newString = ""

    if index > len(string) - 1:

        print("This index is out of bounds!")

        return

    for i in range(len(string)):

        if i != index:

            newString = newString + string[i]

        print("The new string after removing the character at index {} is: {}".format(index, newString))

givenString = "I am a string to have characters removed"

removeFromString(5, givenString)
```

The new string after removing the character at index 5 is: I am string to have characters removed