

# 1 Python: Homework 6

## 1.1

Get as an input a,b,c which are coefficients of  $ax^2+bx+c=0$ . Solve them using the formula  $(-b \pm (b^2-4ac)) / (2a)$  using the math module.

```
Output :  
  
Enter a: 1  
Enter b: -1  
Enter c: -6  
The roots are: -2.0 , 3.0
```

## 1.2

Get a list of numbers as an input from the user. Using for-loops sort them in ascending and descending order.

```
Output :  
  
Enter a list of numbers: [35,0,72,16,-14,3,10]  
[-14, 0, 3, 10, 16, 35, 72]  
[72, 35, 16, 10, 3, 0, -14]
```

(Hint: Check whether the next number is smaller than previous one if so swap them)

## 1.3

Get a string of numbers from the user.

Print the odd and even numbers in descending order as a string using a WHILE-LOOP.

```
Output :  
  
Enter a string of numbers: 18492575019  
Odd numbers: 9975511  
Even numbers: 8420
```

Hint: Use `.sort()`, `.reverse()` and also the `.join()` function. For more information: [link](#)