

## CS 201 Homework #7

Deadline: November 9<sup>th</sup>, 9:00 pm. Save your code as `lastname_homework7.py` and submit on Edmodo.

### Questions/Tasks:

1) Consider the following scenario. You start with \$1. Each odd month (January, March, May, July, September, November) your money is increasing by 10% per day but for each even month (the other six) your money is decreasing by 5% per day. In addition, you get \$100 in the beginning of March and May. Use for loop and if statements to do the math and print how much money you have at the end of each month. (For this task, assume that each month is 30 days).

2) Using for loop, create a multiplication table for values between 1 and 10. Remember that `print(x)` commands prints on a new line unless you use `print(x, end = " ")`. Try to make your table look nice. Hint: use if statement to identify if extra spaces should be added to some numbers in the table to make it look something like this.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

3) Use the following list for this question:

```
a = [3.14, "Apple", "Orange", 11, 9, 2019, "Apple", 3.14]
```

Print all numbers from the list; for strings print "NaN" (Not a Number). Hint: recall `type()` function.

Find the largest number in the list. Print this value.

Create two separate lists: (1) `nums`, a list of all numbers from `a`, and (2) `words`, a list of all strings from `a`. Print both lists.

Create a new list that consist of `nums` and `words` elements separated by a '\$' symbol. Print this new list.