1940223_2022-01-08 (revision)

March 28, 2022

AIM: Revision

1 Print & last digits of a given integer

```python
[1]: n = abs(int(input("Input integer: ")))
     lastDigit = n % 10
     # Narrowing down to the first digit...
     firstDigit = n
     while firstDigit >= 10: firstDigit = int(firstDigit / 10)
     print("First digit:", firstDigit)
     print("Last digit:", lastDigit)
```

```
Input integer: 2314
First digit: 2
Last digit: 4
```

2 Find factorial of a number

```python
[2]: def factorial(n):
         if n == 1 or n == 0: return 1
         return n * factorial(n - 1)
     n = abs(int(input("Input integer: ")))
     print("{0}! = {1}".format(n, factorial(n)))
```

```
Input integer: 7
7! = 5040
```

3 Check if inputted number is palindrome

```python
[3]: n = abs(int(input("Input integer: ")))
     tmp = n
     rev = 0
     while tmp > 0:
         rev = rev * 10 + tmp % 10
         tmp = int(tmp / 10)
     if n == rev: print("Is palindrome")
```

```
else: print("Not palindrome")
```

```
Input integer: 543212345
Is palindrome
```

4 Identify largest of given numbers

```
[4]: N = input("Input numbers separated by comma:\n").split(",")
     # Converting the strings to integers
     N = list(map(float, N))
     print("Largest value:", max(N))
```

```
Input numbers separated by comma:
1, 41, -231, 23, 0, 42.1
Largest value: 42.1
```

5 Plot sine and cosine functions in one graph

```
[5]: import matplotlib.pyplot as plt
     from numpy import sin, cos, linspace, pi
     x = linspace(-2*pi, 2*pi, 50)
     plt.plot(x, sin(x))
     plt.plot(x, cos(x))
     plt.legend(["sin(x)", "cos(x)"], bbox_to_anchor = (1, 1))
     plt.axhline(lw=0.5, color='black')
     plt.axvline(lw=0.5, color='black')
     None
```