

## Problem Set 2

## Problem - 2.1

Write a Python program that reads an positive integer  $n$  and prints the sum of its digits.

**Input:** 201567

**Output:** 21 (2 + 0 + 1 + 5 + 6 + 7)

## Problem - 2.2

Write a Python program that reads a number  $a$  and an integer  $n$  (positive, zero or negative) and computes  $a^n$ . But you are not allowed to use the operator `**` or any other library function (use loop).

**Input:** a: 7.5. n = -2

**Output:** 0.01777777777778

### Problem - 2.3

Write a Python program that draws a small colored circle centered at  $P$ . The program accepts a point  $Q$  by a mouse-click, and slowly moves the original circle to  $Q$  along the the line  $PQ$  to  $Q$ .

## Problem - 2.4

Write a Python program that reads a non-negative integer  $n$  and prints its binary representation as a string. Note that `str(n)` converts an integer to string.

**Input:** 13

**Output:** 1101