## Problem introduction

* Things to consider
  + - Analysis
    - Number and types of input

## Problem statement – Modified Armstrong Number

* Ex: 153 = 1^3 + 5^3 + 3^3
* Task: check if a number given is an Armstrong number or not

## Analysis

* A number is given
* Need to check it
* Questions
  + - Ask for range of number
    - Type of output needed?
    - Total #digits is given or not?

**I/O**

* **Input**
  + - Integer
    - #inputs: 1
* **Output**
  + - Logical
    - #outputs: 1

## Constraints

* Number must not end with 0
* Conditions of Armstrong number
* Number of digits **not** given

## Flow chart

* Representation of steps to be performed
* Visualization of problem
* Shows data flow with the help of arrows
* Can be used for normal audience
* Have start and end point

## Flowchart – Symbols

* Start/end – ellipse
* Input/output – parallelogram
* Process – rectangle
* Decision steps (if) – diamond
* Connect steps – arrows
* On page connector – circle

Flowchart – Modified Armstrong Number

* ­

Pseudocode

* Input a number
  + - Check last digit. If 0 then FALSE
    - Count #digits
    - Take each digit and raise it to #digits. Add to the sum variable

Algorithm