

ICS4U1: Pre – Assignment 2

The purpose of this exercise is to check your technology at home to create the code for this project and as well as check the technology at the school end to collect it. You only have to submit the source file for this project, not the whole project. It is the source file that contains your C++ code, the *.cpp* file (C++ Source file). It is in the project folder. This will not be marked but will be evaluated for successful completion. As always, email any questions to wilfordd@hdsb.ca.

Stay tuned for Assignment 2. This will be based on Exercise 2, so make sure you have your files from Exercise 2.

1a) Write a program that inputs a positive three digit number and prints the sum of the cubes of each digit. e.g.

Input an integer: 145

The sum of the cubes is 190 (because: $1^3 + 4^3 + 5^3 = 190$)

Input an integer: 371

The sum of the cubes is 371

Input an integer: 0

Bye!

b) Modify the above program to print all integers from 1 to 999 which are equal to the sum of their cubes. (371 in one such number)

c) Create a boolean function, *cube*, that returns *true* if the sum of the cubes of the digits of the integer passed as a parameter, *n*, is equal to *n*; *false* otherwise. Use the following definition for the function:

bool cube (int n)