

## Practice S07P02: Arithmetic Mean and Geometric Mean

[http://www.comp.nus.edu.sg/~cs1010/4\\_misc/practice.html](http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html)

**Week of release:** Week 8

**Objective:** Function with pointer parameters

### Task statement:

Given 3 values  $a$ ,  $b$  and  $c$ , their *arithmetic mean* (AM) and *geometric mean* (GM) are defined as follows:

$$AM = (a + b + c) / 3$$

$$GM = \sqrt[3]{a \times b \times c}$$

You should use type **float** for the means.

Write a program **means.c** to read in 3 positive integers and compute their AM and GM using a single function called **compute\_AM\_GM()**. You are to decide on the parameters. There should be no **printf()** statement in this function.

The output should display the means in 2 decimal places.

### Sample runs:

```
Enter 3 positive integers: 1 2 3
Arithmetic mean = 2.00
Geometric mean = 1.82
```

```
Enter 3 positive integers: 21 5 98
Arithmetic mean = 41.33
Geometric mean = 21.75
```