Problem Set 1 Exercise #13: Arithmetic Mean and Geometric Mean

Reference: Lecture 2 notes

Learning objective: Writing functions

Estimated completion time: 25 minutes

Problem statement:

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

$$\text{AM} = (a+b+c)/3$$

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

Write a program **means.c** to read in 3 positive integers and compute their AM and GM using two functions called **`compute_AM()`** and **`compute_GM()`**.

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

The output should display the means in 2 decimal places.

Sample run #1:

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

Sample run #2:

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