

Problem Set 1 Exercise #15: Cuboid

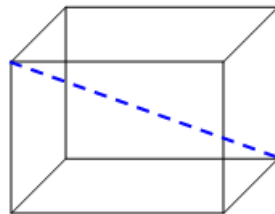
Reference: Lecture 2 notes

Learning objective: Writing methods

Estimated completion time: 25 minutes

Problem statement:

Write a program **PS1_Ex15_Cuboid.java** that reads three positive integers representing the *length*, *width* and *height* of a cuboid, and computes (1) its surface area, and (2) the length of the diagonal between two vertices of the cuboid that are furthest apart.



Dotted blue line shows the diagonal connecting two vertices that are furthest apart.

You are to write two methods: **computeSurfaceArea()** and **computeDiagonal()** to compute the surface area and length of diagonal of the cuboid respectively.

Please correct your output of real number to two decimal places.

Sample run #1:

```
Enter length: 12
Enter width : 3
Enter height: 10
Surface area = 372
Diagonal = 15.91
```

Sample run #2:

```
Enter length: 10
Enter width : 20
Enter height: 10
Surface area = 1000
Diagonal = 24.49
```