**12DTP: Example 2 on program development**

**Question**

Enter the breadth, height and depth of a rectangular box. Determine and print out with suitable messages the volume and surface area of the box.

**Input**

|  |  |  |
| --- | --- | --- |
| *variableName* | *type* | *availabilty* |
| breadth | float | User input - keybpard |
| height |
| depth |

**Output**

|  |  |  |
| --- | --- | --- |
| variableName | format | where |
| volume | 3dp with message | screen |
| surfaceArea |

**Processing**

volume 🡨 breadth \* height \* depth

surfaceArea 🡨 2\*( breadth \* height + breadth \* depth + height \* depth)

**Pseudocode**

Enter data of height, depth, breadth

Calculate volume and surface area

Display results

**Test data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *breadth* | *height* | *depth* | *volume* | *surfaceArea* |
| 12 | 15 | 25 | 4500 | 1710 |
| 2.3 | 5.8 | 6.1 | 81.374 | 125.500 |
| 500 | 254 | 87 | 11049000 | 385196 |

**Testingplan**

1. version 1 to enter the data

2. version 2 to do calculation for volume

3. Version 3 to do calculation for surface area