

Task 2.1

```
import math
radius = 6
volume = 4 / 3 * math.pi * radius ** 3
print('The volume of a sphere is ', int(math.floor(volume)), '[cm^3] for a given')
print('diameter of ', 2*radius, '[cm]')
```

Task 2.2

```
import math
radius = 6
volume = (4 / 3) * math.pi * radius ** 3
volume1 = int(math.ceil(volume))
print('The volume of a sphere is ', volume1, '[cm^3] for a given')
print('diameter of ', 2*radius, '[cm].')
```

Task 3A

Problem #	Hand Calculation	Python Calculation
1	10	10
2	100	100
3	96	96.0
4	16/3	5.333333333333333
5	4096	4096
6	2	2.0
7	13	13

Task 3B

1. If the answer is not a whole number, Python will output a decimal to 15 decimal places, while a user with a calculator may get a fraction. Also, if there is division with integers or floats, or any other operation that contains a float, Python will output a float.
2. `print()`
3. A calculator doesn't have the modulus function, nor the floor division function.

Task 4

1. `>>>a = 6` #spaces around operation to comply with coding standard
2. `>>>B_2 = 4.99999` #changed hyphen in "B_2" to underscore, and added spaces as in line 1
3. `>>>Count = 12.5` #added spaces as in lines 1 and 2 and uncapitalized the 't' in 'Count'
4. `>>>`
5. `>>>class = a + B_2 - Count` #uncapitalized the 't' in 'Count' as in line 3
6. `>>>`
7. `>>>name@name = Count * a`
8. `>>>`
9. `>>>ln = a ** 2` #changed '^' to '**'
10. `>>>`
11. `>>>Sum = name@name - Ln - a * 2` #changed 'Name' to 'name@name' for continuity
12. `>>>`
13. `>>>def = a ** Count` #uncapitalized the 't' in 'Count' and changed '^' to '**'
14. `>>>`
15. `>>>vari_3 = B_2 - 7` #changed '3vari' to 'vari_3'