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Task 2 Question:

- 1. What changes do you need to make to the code to get the following output?
 - a. *Diameter of 25 is a typo* For the volume variable, use the math.floor() function to round down from 392. Plug in volume variable into the parameter of math.floor.
- 2. What changes do you need to make to the code to get the following output?
 - a. For the volume variable, use the math.ceil() function to round up to 393. Plug in volume variable into the parameter of math.ceil()

Task 3 Part A:

| Problem Number | Hand Calculation | Python |
|----------------------|------------------|--------------------|
| | | Calculation |
| A = 5 | 5 | 5 |
| B = A^3 | 125 | 6 (or not possible |
| | | if we aren't |
| | | supposed to use |
| | | the carrot sign) |
| C = B - A * 7 / 5 | 118 | -1.0 |
| D = 7 ^ (7/3) | 93.73362796 | unsupported |
| | | operand type(s) |
| | | for ^: 'int' and |
| | | 'float' |
| E = 3 ^ (2*5) | 59049 | 9 |
| F = 179 % 17 | N/A | 9 |
| G = 17 // 4 + 11 / 6 | 6.083333333 | 5.83333333333 |

Task 3 Part B:

- 1) Any function with a power resulted in a different solution because python does not have a built in power function. The calculator does not have integer division and modulus functions so E and G have different solutions.
- 2) Print() is used to display outputs in the console.
- 3) Python is unable to compute the carrot symbol as an exponent/power function and the calculator is unable to compute the modulus function (%) or integer division (//)

- 1) >>> a=7 no errors
- 2) >>> B-3=1.33333333

B_3 = 1.33333333 the '-' is an operation and is not a valid syntax for a variable name

- 3) >>> ProducT= 12.59
- 4) >>>
- 5) >> return = a + B 2 ProducT

'return' is not a valid variable name as it is a reserved term by Python

- 6) >>>
- 7) >>>names@123 = Product * A

Names@123 is not a valid variable because a variable cannot have special characters

- 8) >>>
- 9) >>> $\lg = a^2$

No variable errors here, but the carrot symbol cannot be used for exponents (** should be used instead.

- 10) >>>
- 11) >>> Sum= Name Lg-a*2
- 12) >>>
- 13) >>>def = a^ProducT

'def' is not a valid variable name as it is a reserved term by Python

- 14) >>>
- 15) >>> 3var = $B_7 7$

3var is not a valid variable because the it starts with a number