

C4M Homework: Homework: Week 1 Level 2

1. The dosage for amoxicillin for a child depends on the child's weight expressed in kilograms. It is 80 mg per kg per day to a maximum of 500 mg per day. The total amount is typically divided into three equal doses. Write a program named `dosage.py` that asks for a child's weight (in kilograms) and prints the total amount per day and the amount of each of the three individual doses.

In order to get the child's weight in kg, use

```
weight = float(input("Weight: "))
```

2. Suppose we have a list of measurements. All the measurements are larger than 0 and the list has at least one measurement. Write a program named `maximum.py` to print the largest measurement from the list. Test your program on the test cases shown in this table.

list	expected output
[1.1, 4, 0.5, 3]	4
[1, 3]	3
[4]	4

Now change your assumption so that there can be negative measurements in the list and change your program so that it still works.

Test your program on these these lists

```
[1.1, 2, -5, 3] -> should print -5  
[-1000, 3] -> should print -1000  
[1000, 3] -> should print 3
```

Now change your program so that it prints the smallest positive value from the list. Test your program on these these lists

```
[1.1, 2, -5, 3] -> should print 1.1  
[-1000, 3] -> should print 3  
[1000, 3, 4] -> should print 3
```

3. A list represents the queue of patients who signed up to see a doctor at a walk-in clinic. A patient would sometimes sign up twice in a row by mistake. Write a function with the signature `two_in_a_row(queue)` that returns `True` if a list contains the same name twice in a row, and `False` otherwise. For example, `two_in_a_row(["Mike G.", "Alice C.", "Bob A.", "Bob A.", "Mary C."])` should return `True`, since the string "Bob A." appears twice in a row, but `two_in_a_row(["Sam A.", "Dorothy Z."])` should return `False`.