

CSCI 135 Software Design and Analysis, C++
Homework 3
Due 2/28/2014

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Problem 1: Collatz

Implement the task of problem 3 of HW2 without using any functions, except the `main()` function.

Problem 2: FIZZ BUZZ

You have two items, a FIZZ and a BUZZ. Each item has a value and a weight. In addition, you have a bag that can carry a certain maximum weight. You are interested in packing the maximum possible value you can (in the best case you can carry both FIZZ and BUZZ). Write a function called `fizzbuzz` that accepts as parameters:

- the value and weight of FIZZ
- the value and weight of BUZZ
- the maximum weight that the bag can carry

and returns the maximum **value** that your bag can carry.

In the main function, ask the user to input all values and weights needed, call the function `fizzbuzz` and output:

- NONE: if the function returns 0
- FIZZ: if the function returns the value of FIZZ
- BUZZ: if the function returns the value of BUZZ
- FIZZBUZZ: if the function returns the sum of the values of FIZZ and BUZZ