

## Week 5 - Tuesday Programming Sprint

Finish as many of the programs listed here as possible during class. You should be able to complete at least 2 programs.

1. Suppose that the tuition for a university is \$10,000 this year and increases 5% every year. Write a program that computes the tuition in ten years and the total cost of four years' worth of tuition starting ten years from now. So, if you were starting college in 10 years, how much would tuition for 4 years cost?
2. Write a program that displays, ten numbers per line, all the numbers from 100 to 200 that are evenly divisible by 5 or 6, but not both. The numbers should be separated on each line by exactly one space.
3. Use a while loop to find the largest integer  $n$  such that  $n^3$  is less than 12,000.
4. Write a program that reads an unspecified number of values from the user. The program will output how many positive numbers and how many negative numbers were entered. The input from the user should stop when the user enters zero.
5. Write a program to play a subtraction game. The game should run as many times as the user desires (ask the user how many games to play at the beginning of the program). Each time the game runs, the user should be presented with a random subtraction problem, using positive integers. The computer should keep track of how many answers the user answered correctly and output that number at the end of the program.
6. Write a program to output a countdown from a number the user enters to 0. The countdown should take one second per number. So, it should print a number, wait a second, print the next number, wait a second, etc., until it gets to zero. HINT: Use "windows.h" and the `Sleep(milliseconds)` function.

NOTE: DO NOT use arrays for any of these problems!