

CMPT120: Introduction to Computing Science and Programming I

Instructor: Hassan Khosravi

Summer 2012

Lab 2

Due: May 30th

This lab is to be done individually.

The university policy on academic dishonesty (cheating) will be taken very seriously in this course. You may not discuss the specific questions nor their solutions with any other student. You are encouraged to discuss the general concepts involved in the questions. Please take advantage of office hours offered by the instructor and the TAs if you are having difficulties

1. Convert the following binary numbers into decimal, assuming they are *unsigned integers*. Show the calculation you did to get the decimal value.
 - a. 1101
 - b. 10011101

2. Convert the following binary numbers into decimal, assuming they are *two's complement values*. Show the calculations you did to get the decimal value.
 - a. 1101
 - b. 10011101

3. Do the following calculations assuming they are two's complement values using 8 digits. Convert your final answer into decimal
 - a. $11101111 + 00000101$
 - b. $11111010 - 11111000$