

CSc 2010: PRINCIPLES OF COMPUTER SCIENCE

Lab 2

How to Submit

Please submit your answers to the lab instructor once you have completed.

Failure to submit will result in a **ZERO FOR THIS LAB. NO EXCEPTIONS.**

1. Give three examples of abstraction that you notice when you are using Facebook. Specify the external interface and internal behavior for each example. (*Example answer: Sending an email to a friend. External: logging into an email account, clicking compose button, typing email and clicking on send button. Internal: The log in server verifies the username and password, the email is transmitted from the user's computer to the receiver's email server*)
[Note: if you don't use Facebook, give the examples for desire2learn]

2. Write an algorithm to calculate and output the mean of 3 given numbers x, y and z.

3. If $x=1$, $y=0$ and $z=1$ what will be the result of the following Boolean expression after substituting the values for x, y and z

- a. $(x \text{ XOR } y) \text{ OR } (y \text{ AND } z)$

- b. $(\text{NOT } x) \text{ AND } (x \text{ XOR } z)$

- c. The truth table for NOR is given below. Find the result of the following Boolean expression $(y \text{ AND } x) \text{ NOR } (y \text{ AND } z)$ after substituting the values for x, y and z

X	Y	output
0	0	1
0	1	0
1	0	0
1	1	0