**Lab 2**

**Exercise 1**

1. Why are the values of the last 2 expressions different?

The values are different because of BEDMAS (order of operations). The middle operation adds 5 to x first and then multiplies by 3 (12\*3 = 36). The last line multiplies 5 by 3 BEFORE adding it to x (15+7 = 32)

What happens if you type 2 = 2 instead of 2 == 2?

A message says “**Bad left expression in assignment**” (using one equal sign is NOT a relational operation)

Which expression would you concatenate the string “**b**” to, so that you get the string “**CS1026b**”?

You would concatenate it with “**CS1026**” as follows:

**“CS1026” + “b”**

1. i. If you now typed in the statement y = x + 5; what would then be the value stored in the variable y?

The value stored in the variable y would be 17.

ii. What are some values that could be stored in x and/or y so that the value for the expression (x<=y) is the opposite of what was printed above?

Possible values for x and y: (as long as it’s an integer for both variables and as long as x>=y)

|  |  |  |  |
| --- | --- | --- | --- |
| X | 2 | 9 | 4 |
| y | 1 | 3 | 3 |

iii. What is being cast by the casting operator (int) here?

iv. Can you guess what the output will be, before you type in this sentence?

c

What is being cast by the casting operator (int) here?

C

v. How would you change the *first line only* so that printing variable message1 would result in the following output on the screen?

She said,

Hi there

**Exercise 2**

1. For the expression 4 \* 3 + 2 \* 9 / 3 where would you place the parentheses (if any are needed) so that the result is 60?

c

2. For the expression 12 / 4 \* 3 + -1 where would you place the parentheses (if any are needed) so that the result is 0?

c

3. For the expression 2 \* 12 / 4 + 1 where would place the parentheses (if any are needed) so that the result is 7?

c