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## Lab 1: Introduction to C++ and Data

## Question 1

- a. Boolean
- b. string literal
- c. Int
- d. Double
- e. Unsigned long
- f. Double
- g. String literal
- h. Float
- i. Hex literal
- j. Binary literal
- k. Unsigned long
- l. Octal literal

## Question 2

- a. No error
- b. Link error
- c. Syntax error
- d. Syntax error
- e. Logic error

## Question 3

- a. It would print some odd numbers because of the overflow, since char can only hold values between –128 to 127, setting char c = x will overflow the limit, and it will print out some odd numbers depending on the ASCII table.
  - In this case, the output is A
- b. The output would be 65214 because for the unsigned char, the values varies between 0 to 65535. C++
- c. The output is 1, because in C++ the value of non-zero is always true which turns out to be 1. hence it prints out 1
- d. Since the value of b is 1, the value of b is assigned to the x, and when we print out x,the printed value is 1
- e. The output is 2, because the bit value of short int is 16-bits, and it outputs 2-bytes (1 byte = 8 bits)

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f. The output is 8, because the bit value of unsigned long long is 64 bits and that's why it outputs 8 which is 8 bytes

g. The output would be 45 because x is an integer, and it will truncate the decimal value as it can't take doubles'