**Primitive Data Types**

After learning about variable initialization and assignment, you should be aware that data types are serious business. They can determine the success or failure of your project. Therefore, you should know them extremely well. This document should serve as a quick reference guide for the data types we will be using most often in this class. Research each of the terms below and write their definitions in the boxes below

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| **int : stands for integer. Is 32 bit, and thus holds an integer from -2^31 to 2^31-1.**  **Can’t hold decimals.** |
| **double: a double is essentially a 64 bit integer. If there is a number which is astronomically large, for example, use a double. It is also the first choice for holding a decimal.** |
| **Boolean: a Boolean is a conditional statement that can be tested. It is either “true” or “false”.** |
| **float: is essentially an integer that can hold decimals. It isn’t as accurate as a double, and thus shouldn’t be used for exact things, but it saves memory in long arrays, for example.** |
| **char: stands for character. Is a positive short, thus it can hold larger numbers than an a short, but it’s value must be positive. It can hold from 0 to 65535.** |
| **short: is a 16 bit variable, used to hold smaller numbers than int. It can hold from -32768 to 32767.** |
| **long: the largest variable. Is essentially a double that can’t hold decimals. It can hold from -2^63 to 2^63 -1.** |