

# AP Computer Science A Notebook

## Kadence Ly

### 1. Primitive Types (Java)

- (a) int - this can represent an integer, meaning a positive or negative number without decimals
- (b) byte - this represents the smallest type of integer
- (c) short - this represents the second smallest integer, bigger than a byte smaller than an int
- (d) long - this represents the biggest type of integer.
- (e) float - this represents a number with up to six or seven decimals, every number ends with the letter f
- (f) double - this represents a number with up to fifteen decimals
- (g) boolean - this will hold a value called true(1) or false(0)
- (h) char - this represents a single character, uses a single quotation mark

### 2. Using Objects

- (a) An object is something that contains attributes / characteristics
- (b) An example of a well known object is an array. An array holds multiple values of the same data types in java
- (c) Another well known object is a String. A String is NOT a primitive data type. A String is an array of characters - a character is a primitive type while a String holds them.
- (d) they aren't primitive types but they are objects
- (e) each object is different from each data type - each object has method and variables
- (f) **Example: Animal**
  - i. An animal has the following characteristics: name, haircolor, species, mother, sound, number of legs
  - ii. A name is just a variable with type String.
  - iii. Haircolor is just a variable with type String
  - iv. Mother is just a variable of type Animal