***Compute Area java visualizer:***

<https://liveexample.pearsoncmg.com/liang/intro12e/html/ComputeArea.html>

**Double and Float:**

*Code Example for a double (memory):*

**public** **class** ComputeArea {

**public** **static** **void** main(String[] args) {

**double** radius; // Declare radius

**double** area; // Declare area

// Assign a radius

radius = 20; // New value is radius

// Compute area

area = radius \* radius \* 3.14159;

// Display results

System.out.println("The area for the circle of radius " +

radius + " is " + area);

}

}

**What is a Double?**

*A double****can represent larger (and smaller) numbers than a float****and can represent them with more than twice the precision.*

**What is a Float?**

*A float data type in Java stores a decimal value with 6-7 total digits of precision. So, for example, 12.12345 can be saved as a float, but 12.123456789 can't be saved as a float.*

**Two parts of Declaring:**

*1.) Assign data Type*

*2.) Identifier*

**Primitive Data types:**

byte = 1 byte

short = 2 bytes

int = 4 bytes

long = 8 bytes

float = 4 bytes

double = 8 bytes – shows more than 2 decimal points

boolean = true or false

char = character value

**Non-Primitive Data Types:**

**String = two words**

**Array = All elements within an array must be of the same data type (e.g., all integers, all strings, etc.).**

**Identifiers:**

**\*Table of Contents in the code\***

**Classes: For example, MyClass.**

**Methods: For example, calculateSum().**

**Variables: For example, age, userName.**

**Packages: For example, com.example.myproject.**

**Interfaces: For example, MyInterface.**

**Version Control & IDE: GitHub and Eclipse**

*Eclipse Cheat sheet:* [*https://docs.google.com/presentation/d/1zN6ux8dob\_w-8bft0ey3BpuAKhaK4x8QmyowwRUbl0A/edit?slide=id.p1#slide=id.p1*](https://docs.google.com/presentation/d/1zN6ux8dob_w-8bft0ey3BpuAKhaK4x8QmyowwRUbl0A/edit?slide=id.p1#slide=id.p1)

**Casting:**

Casting: Convert one data type to another data type

Explicit casting = manual casting of a double variable

Implicit casting = automatic casting

**Class :**

public class ComputeChange {

**Comments :**

**// - one line**

**/; - multiple lines**

**Change test**