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* **What types of variables used in java?**
  + int
  + double
  + String
  + JLabel
  + What are 3 variable naming no no’s?
* **Java classes**
  + Each java program is a class that contains a main method where the program starts running
  + A constructor can be defined which will get called when an instance of the class is created
  + Methods are called by using the name of the method followed by the () and inside any \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ needed to be passed to the method
* **Java naming conventions**
  + Java classes are named using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
    (First letter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and subsequent words \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
  + A class defining a circle would be spelled \_\_\_\_\_\_\_\_\_
  + An object is a specific instance of a class
  + 3 objects of the circle class could be spelled c1, c2 and c3
* **Import statements**
  + What do import statements accomplish?
  + What is a typical import statement we have used?
* **Printing to the console window**
  + What are the two commands to print stuff to the console window??
  + Write a method called output10 that loops and prints out the numbers 1-10 on separate lines
  + Write a method called output10NoLineBreaks that prints out the numbers -1 to -10 on the SAME line separated by a space
* **Methods cont’d**
  + Methods can also have \_\_\_\_\_\_\_\_\_\_\_\_\_ or variables in the parentheses of the method that act as inputs to the method
  + Parameters can help a programmer create powerful, reusable methods
* **For example**
  + To find the area of any triangle
  + public double area(double len, double height)
  + {

return .5\*len\*height;

* + }
  + //To call this method and find the area of a 12 length by 4.5 h triangle and print it use…
* **Looping**
  + Allows a programmer to repeat commands a certain number of times
  + Typical loop format
  + Set control var
  + while(condition){
    - //take some action
    - Increment control variable
  + }
* **Looping – cont’d**
  + How many times will the following loop get executed?
  + int i = 5;
  + while(i<0){

System.out.println(“I am in the loop”);

i++;

}

* + How about this one?
  + int i = 0;
  + while(i<8){
    - System.out.println(“I am in the loop”);
    - System.out.print(i\*i);
    - i++;
  + }
* **Logical Operators**
  + Logical AND
  + Logical OR
  + Logical Negation
  + What is the value of
  + (5!=3)&&(4<8|| 1>0)?
  + ((!(3>=3))&&(1<5))?
  + !(-1>0)?
* **Mathematical Operators**
  + +
  + -
  + / double
  + / integer
  + \*
  + %
* **Scope of variables**
  + Describe the scope of;
    - Globals
    - Local variables
    - Parameters
* **Arrays**
  + Arrays are collections of variables of the same type, grouped under a single name.
  + Array sizes are \_\_\_\_\_\_\_\_\_ at the time an array is created with the new command
  + In order to utilize an array, use a subscript inside the [ ] ‘s.
* **Arrays – cont’d**
  + Use an array to store 5 different randomly generated integers between 1 and 1000. You may assume that java.util.\* has been imported
  + public static void main(String[] args) {
    - Random r = new Random();
    - int[ ] nums = new int[5];
    - for (int i=0; i<5; i++) {
    - nums[i] = r.nextInt(1000)+1;
    - }
* **java.util.Random**
  + Random r = new Random();
  + What is the range of r.nextInt(5)?
  + What is the range of r.nextInt(10)?
  + What is the range of r.nextInt(3)+1?
* **Glossary Terms**
  + method
  + double
  + String
  + int
  + application
  + applet
  + if statement
  + JFrame
  + TCP/IP
  + GUI
  + CPU
  + JAR file
  + .java file
  + .class file
  + IDE
  + main
  + logic error
  + syntax error
  + Java Virtual Machine
  + algorithm
  + object oriented programming
  + class
  + ASCII code
  + hardware dongle
  + boolean