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CS1400

**Exam Review Questions**

* Chapter 1
  + Essay: What is the difference between Psuedocode and actual code?
    - **Psuedocode is an informal version of code. Anyone should be able to read it. It just writes out the process of a program.**
  + Short Answer: Which part of the PC performs calculations needed in a Java program?
    - **CPU**
* Chapter 2
  + Short Answer: What does the diamond in a flow chart represent?
    - **A Question**
  + Essay: Write an “If, else” statement that asks if X is greater than Y it prints x is greater than Y. If not, it prints a statement that says y is greater than x.
* Chapter 3
  + Short Answer: Create a single line of code that declares 3 integer variables called x, y, and z.
  + Multiple Choice Which data type would you want to use to hold the number 2.789 x 10^45?
    - A) int
    - **B) double**
    - C) float
    - D) Integer
* Chapter 4
  + Essay: Write a brief description of these logical operators, “ ! “ , “ || “ , and “ == “.
  + Essay: Describe an instance where you would use a “Do, While” loop.
* Chapter 5
  + Short Answer: What would the “toUpperCase” method in the String class return?
  + Multiple Choice: Which would you use to format a double value called “test” to have 3 decimal points?
    - A) System.out.printf( “ %.3d “ , test );
    - B) System.out.printf( “.3%d” test;);
    - **C) System.out.printf( “%.3f”, test);**
    - D) System.out.printf( %.3f , test;);
* Chapter 6
  + Essay: What is a driver class and when is it used?
  + Short Answer: What is the default value of a int?
    - **0**
* Chapter 7
  + Short Answer: When is the “ == “ appropriate for testing for equality?
    - **When testing for the same contents, not the same address.**
  + What is a memory leak?
    - **It’s when an inaccessible object is allowed to stick around and take up memory.**
* Chapter 8
  + Short Answer: What is the point of stubbing out code?
    - **Stubbing code is a way to plan out how your program is going to work without actually spending time coding it out.**
  + Short Answer: When is it proper to use the “.this” prefix?
    - **You use the .this within an instance method or a constructor to access the calling object's instance variables.**
* Chapter 9
  + Multiple choice: Does the “Static” modifier apply to
    - **A) Attributes for all of the variables in a class**
    - B) Attributes for individual variables in a class
  + Short Answer: Declare a double constant named “Final grade” as 90.5
    - **final double FINAL\_GRADE = 90.5;**
* Chapter 10
  + Multiple Choice: Which is better at storing primitive values?
    - A) Array
    - B)**ArrayList**
  + Short Answer: What is the return type for an ArrayList’s get method?
    - **The type of data being stored inside of it**
* Chapter 11
  + Multiple Choice: How many bits are used to store an int value?
    - A) 8 bits
    - B) 16 bits
    - **C) 32 bits**
    - D) 64 bits
  + Short Answer: What number do you add to a uppercase char variable to make it lowercase?
    - 32
* Chapter 12
  + Essay: How can inheritance lead to code reusability?
    - **By using inheritance, we can separate our code into classes. An example of this, would be a program that stores information about the people on a college campus. These are all people, they all have names, addresses, phone number, etc. These can all be stored in a person class. Then as we separate students and employees, we can reuse the person class that has all of the standard information, but specify salary for employees, and specify classes being taken for a student.**
  + Short Answer: If a superclass declares a variable to be private, can you directly call it from a sub class?
    - **No, you need to call a public getter method from the superclass.**
* Chapter 13
  + Short Answer: If you don’t override the “toString” method in a class, what will the oupt be?
    - **Full classname, @, hexadecimal hash code value**
  + Short Answer: Put the class modifiers public private and protected in order from the most access to the least amount of access.
    - **Public, protected, private**
* Chapter 14
  + Short Answer: What is the point of exception handling?
    - **Exception handling is a technique for handling exceptions gracefully.**