**Study guide, Test 3**

**Examples of Topics**

* List and describe two of the troubleshooting mechanisms described in chapter 11. In your answer, be sure to discuss why the method works well. Also, give examples and/or tell how the troubleshooting methods work.
* There will be a question about algorithms. You don’t have to memorize the 4 or 6 steps exactly, but must be able to talk about it in some substantive way if asked an essay question.
* What is the name of the class for loading and displaying images?
* Explain the syntax for the image() function.
* What is the purpose of the translate() function.
* Explain how the alpha value works in tinting. That is, what is the range of numbers? What is the highest and the lowest? In the following code, which is the alpha?   
  tint(0, 255, 0, 127)
* Who coined the term debugging?
* Write and describe the syntax for the distance function.
* What is the meaning of millis().
* Define an array.
* Declare and initialize an integer array that has 500 elements. The name of the array is theValues

**Design principles**

Answers must be based on group presentations.

* What is the purpose of using the principle of **Harmony** in designs? Also, state TWO strategic ways in which **Harmony** can be used to produce an effective graphic design.
* What are the 3 types of shapes as presented by the group? Which type is free-flowing and used to represent the real world?
* (8:30) Regarding typography, what is the importance of using a visual hierarchy?
* What is positive and negative space?
* What is the difference between RGB and CMYK?

**Examples of multiple choice**

1. Which is the correct syntax for filling an array element
   1. stuff[0] = 1.6;
   2. stuff{0} = 1.6;
   3. stuff(0) = 1.6;
   4. stuff0 = 1.6;
2. Which is the correct syntax for iterating through all elements in an array?
   1. for (int i = 0; i< values.length; i++) { }
   2. for (int i = 0; i< values.width; i++) { }
   3. for (int i = 0; i< values.length(); i++) { }
   4. for (int i = 0; i< values.width(); i++) { }
3. The \_\_\_\_\_ array function is used to expand the size of an array by one element while adding data to the new position
   1. subset()
   2. concat()
   3. splice()
   4. append()

1. You use \_\_\_\_\_\_ to convert a variable type from one type to another.
   1. mocking
   2. casting
   3. copying
   4. emulating
2. The rotate() function takes one argument, an angle measured in \_\_\_\_\_\_\_.
   1. degrees
   2. pixels
   3. inches
   4. radians