

Name: \_\_\_\_\_

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Time: 2 hours

**Terms you Should Know for the Matching and Multiple-Choice Questions**

execute, variable, local variable, global variable, variable declaration, object, control (object), component, method, property, event, procedure, procedure name, event-handling procedure, procedure with a result (called a “Function” in VB), **Sub**, algorithm, loop, counted loop (“For”), conditional loop (“While”), variable declaration, call, argument, parameter, code, if statement, named constant, list, bug, debug, breakpoint, emulator, designer, input/processing/output/memory model, assignment statement

1. **Matching:** Match each term in the left column with the *best definition* or *description* in the right column. There are 20 terms and 26 definitions. (Many of the incorrect definitions are very silly. Their main purpose is to amuse you.) [10]
2. **Multiple Choice:** There are *nineteen* multiple-choice questions based on the *main ideas* that we have covered in this course. (Many of the incorrect answers are *extremely* silly. Their main purpose is to amuse you.) [19]
3. **Identify Program Elements:** Both App Inventor blocks and VB code are given. You need to identify program elements such as procedure names, variable names, arguments, events, etc [14]
4. **Programming:** Shown below is a drawing that consists entirely of line segments, on a canvas of size 300 pixels × 300 pixels.
  - (a) Use the provided grid to reproduce *enough* of the given picture to allow you to see patterns. [5]
  - (b) Now complete the following tables of values. Include enough points to allow you to see patterns. [5]
  - (c) The App Inventor procedures shown below *both* generate the picture shown above *but* they don’t do it in exactly the same way. Study the procedures, then answer the questions found below. [6]
5. Given below is an App Inventor solution to the following problem:

Pizzas cost \$10 each and toppings for the pizzas cost \$0.50 each. When the total number of pizzas is added to the total number of toppings, 86 is obtained. If Homer spent exactly \$100 on pizzas and toppings, how many of each did he buy?

Translate the above App Inventor event handler into a Visual Basic event handler. An outline of the VB event handler is given to guide you through the translation process. [15]