New terms by chapter

Chapter 2

Applet - a Java program that runs in the context of a web browser. Also a class in the package java.applet.

Application - A java program that runs independently.

bug - An error in a program.

byte code - The intermediate form that the Java compiler puts into the .class file to be interpreted by the Java Virtual Machine when the program executes.

Component - a generic class in the package java.awt that includes Button, TextField and other common GUI components.

concatenation - to attach together end to end. If you concatenate "psycho", "the", and "rapist", you get "psychotherapist".

identifiers - Java names. Must start with a letter and be composed of only letters, digits and underscores; case matters.

idiom - a sequence of symbols whose meaning cannot be derived from the individual symbols, but which must be learned as a whole, by rote

Java Virtual Machine - Software that creates the Java environment on a particular machine.

main method - where execution begins when your Application runs

Package - A group of methods arranged so you can easily import classes that other people have written into your program

parameter - information sent along with a message which invokes a method

problem solving -- The behavior one engages in when one is stuck and doesn’t know what to do next.

prototype - a simplified, preliminary version of something, in this case, a program.

public - An access type; means anyone can see this.

Socket - A mechanism to connect one computer to another (virtually). Also a class in the package java.network.

String - the Java class whose instances are each a literal series of characters.

syntax - Grammar. Every programming construct has both syntax (grammar) and semantics (meaning).

Chapter 3

default value - the value you get if you don't do anything. Instance variables are assigned zero by default when they are created. If you want to initialize them to something else you may (e.g. int x=17;).

GUI - graphical user interface
recursive definition -- a definition that uses the thing being defined
variable - memory to store one value of a particular type

Chapter 4
HTML - hypertext mark-up language: an embedded command formatting language commonly used for web pages.
pixels - picture elements, the smallest drawable part of the output
signature - the type, name of a method along with the number of parameter and their types

Chapter 5
actual parameters - parameters in the parentheses of a message (may be any expression of the appropriate type)
assignment operator - a single equals sign
BNF - Backus Naur Form. A metalanguage for describing context free grammars. Commonly used to describe the syntax of a programming language.
compile-time - during compilation, compare with execute-time
formal parameters - parameters defined in a method heading (each must have a type and a name)
instance variable - a variable declared outside of any method, a copy is created for each instance
Math.random() - returns a random double in the range \([0,1)\)
parameter linkage - when a message is sent with parameter, the values of the actual parameters are copied to the corresponding formal parameters
precedence - in an expression with multiple operators, which operator precedes which (* precedes +)
scope - the portion of a program where a construct is visible (or defined)
Semantics - meaning, or action.
shadow - to hide a variable, by being named the same thing in a more local scope; most often happens with parameters
static - modifier that creates class variables or methods instead of instance variables or methods
Syntax - grammar, or form.