CSC 1750 Introduction to Algorithms
Fall 2009
Homework 2

1. Which of the following are Java keywords?
   a. class
   b. public
   c. int
   d. x
   e. y
   f. radius

2. Assume that int a=2 and double d= 2.0, and that each expression is independent. What are the results of the following expressions?
   a. a = 69/4;
   b. a = 64 % 9 + $ * $ - 2;
   c. a = 54 + 34 % 5 * (32 * 2 % 3);
   d. a %= 3 / a + 3;
   e. d = 4 + d * d + 4;
   f. d += 1.5 * 3 + (++a);
   g. d -= 1.5 * 3 + a++;

3. Show the following output.
   a. float f = 21.5F;
   b. int i = (int)f;
   c. System.out.println("f is " + f);
   d. System.out.println("i is " + i);

4. Are the following conversions involving casting allowed? If so, find the converted results.
   a. char c = ‘A’;
      i = (int)c;

   b. float f = 1000.34f;
      int i = (int)f;

   c. double d = 1000.34;
      int i = (int)d;

   d. Cc
      int i = 97;
      char c = (char)i;
5. Show the output of the following statements (write a program to verify your results):
   a. System.out.println("1" + 1);
   b. System.out.println(1’ + 1);
   c. System.out.println("1" + 1 + 1);
   d. System.out.println("1" + (1 + 1));
   e. System.out.println(1’ + 1 + 1);

6. Describe syntax errors, runtime errors, and logic errors.