Homework

Grade 11 Review 1 – Assignment, BEDMAS

1. Trace through the following code segments and illustrate the output and
   memory.

   a)

	Output	Memory

`int a = 3;`
`int b = 9;`
`System.out.println(b);`
`a = b + 2;`
`a = a + b;`
`System.out.println(b+3);`
`System.out.println(a);`		

   b)

	Output	Memory

`int ans = 10;`
`int res = 6;`
`int num;`
`num = ans + res;`
`System.out.println(num + 2);`
`res=num + 3;`
`System.out.println( res);`		

2. Circle the assignment statements that will cause errors

```
int a = 6;
int b = 3;
float c = 3.5;
char e = 'd';
int f;

// consider each of the following lines individually; assume the
initial values given above
a = 4;

b = a + b;
c = a + b;
e = e;
e = 'h';
b = f;
```

3. Write a program that reads three double values and computes their average.

4. Write a program that calculates the number of hours of your life that you have spent sleeping. Assume that you sleep 8 hours each night. To simplify the problem, assume that there are 30 days in each month and 365 days in each year. The program output should look similar to:

```
Enter your birthdate:
Year:  1990
Month:  9
Day:  8
Enter today's date:
Year:  2006
Month:  2
Day:  12
You have been alive for 5634 days.
You have slept 45072 hours.
```

5. A fast food restaurant charges $1.69 for burgers, $1.09 for fries, and $0.99 for sodas.
   a) Write a program that prompts the employee for the number burgers, fries, and sodas and then displays the totals, the PST (8%), the GST (5%), and the final cost.
   b) Modify the program to prompt the employee for the amount tendered and then display the change due.

6. Write a program that asks the user for a three-digit number, finds the sum of the digits of the number, and then prints both the number and its digit sum.

Reference for questions 3, 6
Carter, John. An Introduction To Computer Science Using Java. Toronto: University of Toronto Press, 2003

Reference for questions 4, 5
Brown, Beth. A Guide to Programming in Java, 2nd Edition, for Java SE5 and Java SE6. Pennington: Lawrenceville Press