Quiz 2
BE-104, Dr. C. S. Tritt, Spring '05

Problems 1 and 2 are worth 25 points each. Problem 3 is worth 50 points. *Snip*...

1. Given the following declarations and definitions:

```
int a = 5;                    double d = 2.5;
int b = 3;                    double e = 10.0;
int c;                        double f;
```

Evaluate each of the following expressions (or indicate that the expression would result in an error): (5 points each)

c = a * b; **= 5 * 3 =** **15**

c = e / d; **= Error, type mismatch wont even compile!**

f = d / e; **= 2.5 / 10.0 =** **0.25**

c = a + b * 3; **= 5 + (3 * 3) = 5 + 9 =** **14**

f = 4 * d / (b + 2); **= 4 * 2.5 / (3 + 2) = 10./5 =** **2.**

In general, *int*'s can be promoted to *double*'s, but *double*'s can't be demoted to *int*'s.

2. What are named constants and why are they generally preferable to literal constants?

Named constants are "final" variables that make programs easier to understand and modify (any 2 or 3 of the 3 for full credit). Literal constants are just numbers like 3.1415. Implying literal constants are "variables" −10.

3. Write a fragment of code (you don't have to include stuff like *import* and *main*) that illustrates how you would prompt the user for console or GUI mode input of an integer value and place their response into a type *int* variable called *age* (You may use the back of this page for more space).

Anything like…

```
age = Integer.parseInt(JOptionPane.showInputDialog("Enter age: "));
```

or

```
Scanner sysin = new Scanner(System.in);
System.out.println("Enter age: ");
age = sysin.nextInt();
```

Not assigning JOptionPane result (using a parameter) −5. Other errors as appropriate.