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**Exercise on Lesson 5**

Unless otherwise instructed in the following problems, state what gets printed.

1. Write code that will create a constant *E* that’s equal to 2.718.

**final double E = 2.718;**

1. Write the simplest type constant that sets the number of students, *NUM\_STUDENTS*, to 236.

**final int NUM\_STUDENTS = 236;**

1. What’s wrong, if anything, with the following code in the *main* method?

final double Area;

Area = 203.49;

**There is nothing wrong with this code.**

1. int cnt = 27.2;

System.out.println(cnt);

What’s printed?

**The code will not compile.**

1. double d = 78.1;

int fg = (int)d;

System.out.println(fg);

What’s printed?

**78**

1. Is *double f4 = 22;* legal?

**Yes**

1. The following code stores a 20 in the variable *j*:

double j = 61/3;

What small change can you make to this single line of code to make it produce the “real” answer to the division?

**double j = 61/3.0;**

1. System.out.println( (double)(90/9) );

**10.0**

1. System.out.println(4 + 6.0/4 + 5 \* 3 - 3);

**17.5**

1. int p = 3;

double d = 10.3;

int j = (int)5.9;

System.out.println(p + p \* d - 3 \* j);

**18.9**

1. int p = 3;

double d = 10.3;

int j = (int)5.9;

System.out.println(p + p \* (int)d - 3 \* j);

**18**

The following code applies to 12 – 15:

int dividend = 12, divisor = 4, quotient = 0, remainder = 0;

int dividend2 = 13, divisor2 = 3, quotient2 = 0, remainder = 0;

quotient = dividend / divisor;

remainder = dividend % divisor;

quotient2 = dividend2 / divisor2;

remainder2 = dividend2 % divisor2;

1. System.out.println(quotient);

**3**

1. System.out.println(remainder);

**0**

1. System.out.println(quotient2);

**4**

1. System.out.println(remainder2);

**1**

1. Write a line of code in which you divide the double precision number *d* by an integer variable called *i*. Type cast the *double* so that strictly integer division is done. Store the result in *j*, an integer.

**j = (int) d / i;**

1. Suppose we have a line of code that says

Final String M = “ugg”;

Later in the same program, would it be permissible to say the following?

M = “wow”;

**No**

1. Is the following code legal? If so, what is printed? If not, why?

int k = 7;

k\*=.5;

System.out.println(k);

**Yes**

**3**