

1. Rewrite each condition below in valid Java syntax (give a boolean expression):

- a. $x > y > z$
- b. x and y are both less than 0
- c. neither x nor y is less than 0
- d. x is equal to y but not equal to z

2. Suppose *gpa* is a variable containing the grade point average of a student. Suppose the goal of a program is to let a student know if he/she made the Dean's list (the gpa must be 3.5 or above). Write an *if... else...* statement that prints out the appropriate message (either "Congratulations—you made the Dean's List" or "Sorry you didn't make the Dean's List").

3. File *Salary.java* contains most of a program that takes as input an employee's salary and a rating of the employee's performance and computes the raise for the employee. This is similar to Homework #2, except that the performance rating here is being entered as a String—the three possible ratings are "Excellent", "Good", and "Poor". As in the pre-lab, an employee who is rated excellent will receive a 6% raise, one rated good will receive a 4% raise, and one rated poor will receive a 1.5% raise.

Add the *if... else...* statements to program *Salary* to make it run as described above. Note that you will have to use the *equals* method of the String class (not the relational operator *==*) to compare two strings.

```
import java.util.Scanner;
import java.text.NumberFormat;
public class Salary
{
    public static void main (String[] args)
    {
        double currentSalary; // employee's current salary
        double raise; // amount of the raise
        double newSalary; // new salary for the employee
        String rating; // performance rating
        Scanner scan = new Scanner(System.in);
        System.out.print ("Enter the current salary: ");
        currentSalary = scan.nextDouble();
        System.out.print ("Enter the performance rating (Excellent, Good,
or Poor): ");
        rating = scan.nextLine();
        // Compute the raise using if ...
        newSalary = currentSalary + raise;
        // Print the results
        NumberFormat money = NumberFormat.getCurrencyInstance();
        System.out.println();
        System.out.println("Current Salary: " +
money.format(currentSalary));
        System.out.println("Amount of your raise: " +
money.format(raise));
        System.out.println( "Your new salary: " + money. format
(newSalary) );
        System.out.println();
    }
}
```