

Program 5

CS 140
Spring 2005
Craig A. Rich

Write a noninteractive Java program (e.g. Program5.java) that reads lines of input containing information about a monthly employee payroll and outputs summary information about the payroll. The input contains an arbitrary number of lines of data, each having the following information:

- ID number, the employee's identification number
- Gross pay, the monthly salary of the employee
- Withholding, an integer representing the amount of tax to withhold from the gross pay

The ID number is an integer between 0 and 9999 that numerically identifies an employee, the gross pay is a positive real number at most 10000.0, and the withholding is an integer between 0 and 4 that represents a percentage of gross pay that is deducted to compute the net pay:

Withholding	Percentage
0	.28
1	.25
2	.21
3	.18
4	.15

The following is an example payroll input file:

```
2341    5329.00    3
1456    2300.00    2
8823    3650.00    1
0145    3750.75    2
3421    1000.00    5
0029    4500.00    3
9832    7000.00    1
S532    4550.00    0
0235    6550.00    3
7283    4350.50    0
9828    3275.00    2
2222         n/a    3
3742    1350.00    3
9234    4795.00    0
```

The program should read the lines of input, ignoring any line with an invalid ID number, gross pay or withholding, and accumulate summary information about the remaining employees. The summary information includes the total gross and net pay for the entire monthly payroll, the average gross and net pay per employee, and the largest gross and net pay for the month, including ID numbers of employees who earned the largest gross and net pay.

Output should be printed to an output file (e.g. Program5.out) through the standard output stream (i.e. System.out), and input should be read from an input file (e.g. Program5.in) through the standard input stream (i.e. System.in). The following is an example of the output produced from the input provided:

```
Ignoring employee 3421 with invalid withholding 5
Ignoring employee with invalid ID number S532
Ignoring employee 2222 with invalid gross pay n/a
```

```
Total Gross Pay: $46850.25
Total Net Pay: $36477.38
```

```
Average Gross Pay: $ 4259.11
Average Net Pay: $ 3316.13
```

```
Maximum Gross Pay: $ 7000.00 (e.g. employee 9832)
Maximum Net Pay: $ 5371.00 (e.g. employee 0235)
```

Turn in a printed copy of the Java source code file (e.g. Program5.java) and the output file (e.g. Program5.out) produced when running your program on the input file provided.