

Problem 1 (*InputMismatchException*):

This problem is based on Programming Exercise 12.2. Review Listing 12.5 – InputMismatchExceptionDemo.java. Write a program that prompts the user to read in two integers and then displays their sum. Give a separate prompt for each integer. Your program should prompt the user to enter a number until the number's format is correct. Here is a sample run indicating how your program should behave:

```
Enter first integer: hi
Try again. (Incorrect input: an integer is required) Enter
first integer: six
Try again. (Incorrect input: an integer is required) Enter
first integer: 6
Enter second integer: five
Try again. (Incorrect input: an integer is required) Enter
second integer: 5
The sum is 11
```

Problem 2 (*Process values in a text file*):

This problem is based on Programming Exercise 12.14. Write a program that prompts the user for the name of a text file. The file should consist of a sequence of integers, one integer per line. The program will read in each line (using `nextLine()`), parse it as an int (using `Integer.parseInt()`), and report the number of values and their average. The average should be computed as a double. Your program should do some basic exception handling:

- (1) If the file cannot be found then the program to print a message to that effect and terminate by executing `System.exit(1)`.
- (2) If the file can be found then every time that the program reads in a line that cannot be parsed (i.e. `Integer.parseInt()` throws a `NumberFormatException`) the program should print an error message with the bad line.

The final printout should display the number of good (i.e. parsable) lines, the average of the parsable values as a double, and the number of bad (unparsable) lines. Two sample runs are shown below:

```
Enter name of input file: numbers.txt Cannot parse eight
as an integer.
Cannot parse seven as an integer.
Cannot parse eighty-five thousand and sixty-two as an integer. Cannot parse 13 98 as
an integer.
Number of parsable lines: 6 Average value:
80.83333333333333 Number of unparsable lines: 4

Enter name of input file: Nums.txt
Could not find file: Nums.txt
```

The values in `numbers.txt` were as follows:

```
5
15
312
16
eight seven 44
eighty-five thousand and sixty-two 13 98
93
```