PROBLEM EIGHT: CHECKING SOURCE CODE

Most programming language code is full of different types of grouping symbols, such as;

- Parentheses: (and)
- Braces: { and }.
- Brackets: [and].

Note that grouping symbols cannot overlap. For example, (a{b)} is illegal.

Write a program to check whether a source-code file has valid group symbols, and if valid, output how many sets of each grouping sets were found in the source code. If the source code file is not valid, simply state the source code file is invalid. That is, if every grouping symbol is properly closed when open. You can check your program against its own source code. Pass the source code file name as a command line argument.

Example output for valid source code:

```
Number of Parentheses () sets: 20
Number of Braces {} sets: 13
Number of Brackets [] sets: 4
```

Hint: When parsing any group symbols, consider *stacking* them.

REQUIRED INPUT: The source-code file name as a command-line argument.
REQUIRED OUTPUT: If the program determines the source code file is valid, output how many sets of each grouping sets were found in the source code. If the source code file is not valid, simply state the source code file is invalid.