

4. What is meant by “case-sensitive”? Why is it important for a programmer to know that Java is a case-sensitive language?
5. Briefly explain how the `print` and `println` methods are related to the `System` class and the `out` object.
6. What does a variable declaration tell the Java compiler about a variable?
7. Why are variable names like `x` not recommended?
8. What things must be considered when deciding on a data type to use for a variable?
9. Briefly describe the difference between variable assignment and variable initialization.
10. What is the difference between comments that start with the `//` characters and comments that start with the `/*` characters?
11. Briefly describe what programming style means. Why should your programming style be consistent?
12. Assume that a program uses the named constant `PI` to represent the value 3.14. The program uses the named constant in several statements. What is the advantage of using the named constant instead of the actual value 3.14 in each statement?
13. Assume the file *SalesAverage.java* is a Java source file that contains documentation comments. Assuming you are in the same folder or directory as the source code file, what command would you enter at the operating system command prompt to generate the HTML documentation files?
14. An expression adds a `byte` variable and a `short` variable. Of what data type will the result be?

Programming Challenges

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1. Name, Age, and Annual Income

Write a program that declares the following:

- a `String` variable named `name`
- an `int` variable named `age`
- a `double` variable named `annualPay`

Store your age, name, and desired annual income as literals in these variables. The program should display these values on the screen in a manner similar to the following:

```
My name is Joe Mahoney, my age is 26 and  
I hope to earn $100000.0 per year.
```

2. Name and Initials

Write a program that has the following `String` variables: `firstName`, `middleName`, and `lastName`. Initialize these with your first, middle, and last names. The program should also have the following `char` variables: `firstInitial`, `middleInitial`, and `lastInitial`. Store your first, middle, and last initials in these variables. The program should display the contents of these variables on the screen.