

## Intro to Programming in Java

### Chapter 1 Test Review

Name \_\_\_\_\_

Date \_\_\_\_\_

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- 1) How is a Java program is best classified?
- 2) 5 bits can be used to represent how many distinct items or values?
- 3) When executing a program, from where does the processor read each program instruction?
- 4) What is the difference between RAM, ROM, disk, software, computer networks?
- 5) What does a computer need in order for it to be accessible over a computer network?
- 6) What does a URL (Universal Resource Locator) specify the address of?
- 7) Why is it important to dissect a problem into manageable pieces before trying to solve the problem?
- 8) What else do we need to do to complete our program once we have implemented a solution and why do we need to do this?
- 9) List some of the characteristics of the Java programming language as discussed in your textbook.
- 10) What is the purpose of comments in a computer program?

- 11) Write the code for (define) the main method for a Java program.
- 12) How would you comment the instruction: `System.out.println("Hello World")`?
- 13) Which characters are allowed as identifiers?
- 14) List 3 legal and 3 illegal Java identifiers.
- 15) Give examples of
  - a) a syntax error
  - b) a run-time error
  - c) a logical error
- 16) Using Java naming convention, write a name for a **class** about store customers.
- 17) Write a good variable name for the current value of a stock.
- 18) What type of error occurs when you compile a program that is missing a semicolon?

- 19) A color image is broken down into individual pixels (points), each of which is represented by
  - a) a 1 for white and a 0 for black
  - b) 3 values denoting the shade of red, green and blue in the image
  - c) a single number indicating the intensity of color between white and black
  - d) two numbers, a value that denotes where between white and black the color is, and a brightness
- 20) How is all information stored in the computer?
- 21) What type of programming language is Java?
- 22) What does the statement `System.out.print` do in a program?
- 23) What types of errors is the Java compiler able to find?
- 24) What does it mean when we say that Java is a case-sensitive language? Give an example
- 25) What does the compiler do with code placed inside of comments?
- 26) What are reserved words? List as many as you can think of. Can they be redefined by the programmer?
- 27) What type of error will dividing by 0 generate?

- 28) What is a binary number?
- 29) What is bytecode?
- 30) What type of error is generated if you mistype “println” as “printn” ?
- 31) Do modern computers store information in analog or in digital?
- 32) What happens to data stored in a particular memory location when new data is written to that same location ?
- 33) What is wrong with the following class definition? Correct the error
- ```
public class Program1
{
    public static void main(String[] args)
    {
        System.out.println("My first Java program")
    }
}
```
- 34) What is wrong with the following class definition? Correct the error.
- ```
public class Program2

    public static void main(String[] args)
    {
        System.out.println("My second Java program");
    }
```

35) Given the following class definition, underline the reserved words.

```
public class Program3
{
    public static void main(String[] args)
    {
        System.out.println("My third Java program");
    }
}
```

36) What is wrong with the following println statement? Correct the error.

```
System.out.println "My fourth Java Program";
```

37) What is the output of the following when the main method is executed? Write it exactly how it would look on the screen.

```
public class Question
{
    public static void main(String[] args)
    {
        System.out.println("hi there");
        System.out.println(" ");
        System.out.println("how are you doing today? ");
    }
}
```

38) What might good identifier names be that would be used to represent:

- a) a person's social security number \_\_\_\_\_
- b) income tax withheld \_\_\_\_\_
- c) net pay \_\_\_\_\_

39) Rewrite the following comment so that it can appear over multiple lines. (Change the type of comment indication used.)

```
// This is one really enormously long comment that might run off the page
```

You will also be asked to write two Java programs on your computer similar to the ones you have been doing in class.