Review Questions

1. When data cannot be changed after a class is compiled, the data is _____.

   a. variable

   b. constant

   c. volatile

   d. mutable

2. Which of the following is not a primitive data type in Java?

   a. `boolean`

   b. `byte`

   c. `sector`

   d. `int`

3. Which of the following elements is not required in a variable declaration?

   a. a type

   b. an identifier

   c. an assigned value

   d. a semicolon

4. The assignment operator in Java is _____.

   a. `=`

   b. `==`

   c. `:=`

   d. `::`

5. Assuming you have declared `shoeSize` to be a variable of type `int`, which of the following is a valid assignment statement in Java?

   following is a valid assignment statement in Java?

a. `shoeSize = 9;`

b. `shoeSize = 9.5;`

c. `shoeSize = "nine";`

d. Two of the above are valid.

6. Which of the following data types can store the value 0 using the least amount of memory?

a. `short`

b. `long`

c. `int`

d. `byte`

7. A `boolean` variable can hold _____.

a. any character

b. any whole number

c. any decimal number

d. the value `true` or `false`

8. The value 137.68 can be held by a variable of type _____.

a. `int`

b. `float`

c. `double`

d. Two of these are correct.

9. An escape sequence always begins with a(n) _____.

a. e

b. forward slash

c. backslash

   d. equal sign

10. Which Java statement produces *w* on one line and *xyz* on the next line?

   a. `System.out.println("wxyz");`

   b. `System.out.println("w" + "xyz");`

   c. `System.out.println("w\nxyz");`

   d. `System.out.println("w\nx\ny\nz");`

11. The remainder operator _____.

   a. is represented by a forward slash

   b. must follow a division operation

   c. provides the quotient of integer division

   d. is none of the above

12. According to the rules of operator precedence, when division occurs in the same arithmetic

   statement as _____, the division operation always takes place first.

   a. multiplication

   b. remainder

   c. subtraction

   d. Answers a and b are correct.

13. The *equal to* relational operator is _____.

   a. `=`

   b. `==`

   c. `!=`

   d. `!!`

14. When you perform arithmetic with values of diverse types, Java _____.

a. issues an error message

b. implicitly converts the values to a unifying type

c. requires you to explicitly convert the values to a unifying type

d. implicitly converts the values to the type of the first operand

15. If you attempt to add a `float`, an `int`, and a `byte`, the result will be a(n) _____.

a. `float`

b. `int`

c. `byte`

b. error message

16. You use a _____ to explicitly override an implicit type.

a. mistake

b. type cast

c. format

d. type set

17. In Java, what is the value of 3 + 7 * 4 + 2?

a. 21

b. 33

c. 42

d. 48

18. Which assignment is correct in Java?

a. `int value = (float) 4.5;`

b. `float value = 4 (double);`

c. `double value = 2.12;`

      d. `char value = 5c;`

19. Which assignment is correct in Java?

      a. `double money = 12;`

      b. `double money = 12.0;`

      c. `double money = 12.0d;`

      d. All of the above are correct.

20. Which assignment is correct in Java?

      a. `char aChar = 5.5;`

      b. `char aChar = "W";`

      c. `char aChar = '*';`

      d. Two of these are correct