P: Student Name: Teacher Name:

1. Today, in computer science, a data type that has only two values of **true** and **false** is a called a \_\_\_\_\_\_\_ data type.

*boolean*

2. What is *Overloading mean?*

it called when one operator can perform different functions.

*Overloading*

3. What is the fancy name for using the plus ( + ) sign to join strings together?

*Concatenation*

4. Which data type is used to process sets of one or more characters?

*String*

5. What is the first form of *program documentation*?

*to use comments*

6. What does the escape sequence **\n** do?

*carriage return, line feed*

7. What escape sequence is used to generate a <tab>?

*\t*

8. Why do we need escape sequences to generate backslash ( **\** ) and quote ( **"** ) characters?

*It prevents confusion to the compiler*

9. What is an *escape sequence*?

*A special set of characters, starting with \, that means something to print, like \n*

10. In a well-documented program, are *single-line comments* or *multi-line comments* necessary in a program that already uses good *­self-commenting variables*?

*Yes*

11. Suppose you are writing a program to compute the average of a list of numbers.

What name should you give the variable that stores the **average**?

*average*

12. What is a *self-commenting variable*?

*A self-commenting variable is a variable whose name describes what the variable is used for.*

13. What happens when you attempt to alter the value of a *constant*?

*It causes a compile error.*

14. What does Java call *constants*?

*final variables*

15 What data type will the array index always be and what is the first array index?

*int*

*0*

16. What is the output of **System.out.println(Math.sqrt(100));** ?

*10*

17. Refer to the previous question 16. What does ***Math*** signify?

*The name of the class*

18. Refer again to question 16. What does ***sqrt*** signify?

*The name of the method*

19 Refer yet again to question 16. What does ***100*** signify?

*The argument/parameter/information being passed/sent to the method*

20. What is a *parameter* used for?

*It provides necessary information to the method.*

21. Can a method be an argument for another method?

*Yes*

22. The information, which is passed to a method is called an \_\_\_\_\_\_\_\_\_\_\_\_\_ or a \_\_\_\_\_\_\_\_\_\_\_\_\_.

*argument or a parameter*

23. Where are parameters placed?

*Parameters are placed between parentheses immediately following the method identifier.*

24. What is the output of **System.out.println(Math.max(100,50));** ?

*100*

25. What is the output of **System.out.println(Math.abs(-7));** ?

*7*

26. What is the output of **System.out.println(Math.pow(3,4));** ?

*81*

27. What is the output of **System.out.println(Math.pow(4,3));** ?

*64*

29. What **Graphics** method is similar to **System.out.println**, but is used with graphics output?

*drawString*

30. Assume **g** is an object of the **Graphics** class. Print the Java command to change the graphics color to **orange**.

*g.setColor(Color.orange);*

31 Java does not use “=” to test for equality? What does it use instead?

= =

32. In Java it is possible to create any of over 16 million different colors by combining different values of what 3 colors?

*red, green and blue*

33. Why is a *prompt* necessary for program *input*?

*Without the prompt the program user has no clue what is happening and certainly does not know what type of input is required.*

**Assume** x **is an** int **for the following questions.**

34. What does **x -= 5;** mean?

*Decrease x by 5.*

35. What does **x \*= 5;** mean?

*Multiply x by 5.*

36. What does **x /= 5;** mean?

*Divide x by 5.*

37. What does **x %= 5;** mean?

*x will become the remainder of dividing x by 5.*

38. What does **x++;** or **++x;** mean?

*In both case variable x is incremented by 1.*

39. What does **x--;** or **–x;** mean?

*In both cases variable x is decremented by 1.*

40 What does **x += 5;** mean? *Increase x by 5.*