Question 1

Which of the following is NOT a valid method to increase a variable named `score` by 1?

- `++score`
- `score++`
- ➡ `++score = score + 1`
- ✖ `score = score + 1`

Question 6

How many times will `outputLabel` be called?

```
for(customer = 1; customer <= 20; ++customer)
     for(color = 1; color <= 3; ++color)
          outputLabel();
```

- ✖ 0
- 3
- 20
- ➡ 60

Question 8

A(n) ____ comparison is based on the integer Unicode values of the characters.

- integer
- symbol
- ➡ lexicographical
- ✖ Character

Question 11

The creators of Java chose ____ characters as the "extra" length for a `StringBuilder` object

- 12
- ➡ 16
- 36
- ✖ 48

Question 12

Besides `Double` and `Integer`, other wrapper classes such as `Float` and `Long` also provide _____ methods that convert `Strings` to the wrapper types.

- ➡ `valueOf()`
- `toWrapper()`
- ✖ `parseString()`
- `parseDouble()`

Question 14

A `StringBuilder` object contains a memory block called a _____, which might or might not contain a string.

- capacity
- ➡ buffer
- ✖ reference
- Thread

Question 15

To alter just one character in a `StringBuilder`, you can use the ____ method, which allows you to change a character at a specified position within a `StringBuilder` object.

- `charAt()`
- ✖ `insert()`
- `append()`
- ➡ `setCharAt()`

Question 16

The methods of the `Character` class that begin with ____ return a character that has been converted to the stated format.

- ✖ `is`
- ➡ `to`
- `for`
- `In`

Question 17

The ____ method returns the length of a `String`.

- ➡ `length()`

Question 18

In Java, `boolean` array elements automatically are assigned the value ____.

- `null`
- '\u0000'
- ✗ `true`
- ➡ `False`

Question 21

In which of the following statements is the value of `myVals` `null`?

- `int myVals = ""`
- ➡ `int [] myVals;`
- ✗ `myVals = int[null]`
- `int[null] = myVals`

Question 23

Providing values for all the elements in an array is called ____ the array.

- ➡ populating
- declaring
- ✗ filling
- Irrigating

Question 25

Which of the following `println` statements will display the last `myScores` element in an array of 10?

- `System.out.println(vals[0]);`
- `System.out.println(vals[1]);`
- ➡ `System.out.println(vals[9]);`
- ✗ `System.out.println(vals[10]);`

Question 26

When any primitive type variable is passed to a method, the _____ is passed.

- ➡ value
- ✗ reference
- location
- memory

Question 27

A(n) ____ loop allows you to cycle through an array without specifying the starting and ending points for the loop control variable.

- ✗ `do...while`
- inner
- ➡ enhanced `for`
- enhanced `while`

Question 28

When you declare or access an array, you can use any expression to represent the size, as long as the expression is _____.

- a variable
- ✗ enclosed in brackets
- ➡ an integer
- a list

Question 29

Which of the following describes a data type for which only appropriate behaviors are allowed?

- value-neutral
- ➡ type-safe
- ✗ enumerated value
- data-cast

Question 32

With a two-dimensional array, the ____ field holds the number of rows in the array.

- `size`
- ✗ `capacity`
- `row`
- ➡ `Length`

Question 34

Regarding enumerations, the ____ method returns an integer that represents the constant's position in the list of constants; as with arrays, the first position is 0.

- ➡ `ordinal`

Question 37

The `Arrays` class ____ method puts a particular value in each element of the array.

- ✗ `binarySearch`
- ➡ `fill`
- `equals`
- `search`

Question 41

If a ____ method has the same name as a parent class method and you use the name with a child class object, the child method hides the original.

- `final`
- ➡ `static`
- ✗ `protected`
- `Private`

Question 42

When you employ ____, your data can be altered only by the methods you choose and only in ways that you can control.

- virtual method calls
- ✗ polymorphism
- ➡ information hiding
- Inlining

Question 43

You are never aware that ____ is taking place; the compiler chooses to use this procedure to save the overhead of calling a method.

- information hiding
- polymorphism
- ✗ overriding
- ➡ Inlining

Question 45

You can use the ____ modifier with methods when you don't want the method to be overridden.

- ➡ `final`

Question 47

By convention, a class diagram contains the ____ following each attribute or method.

- data field
- argument
- ➡ data type
- ✖ Class

Question 48

When you create a class and do not provide a(n) ____, Java automatically supplies you with a default one.

- ➡ constructor
- argument
- ✖ header
- Name

Question 49

Which of the following statements depicts the valid format to call a superclass constructor from a subclass constructor?

- `superclass(name, score);`
- `subclass(name, score);`
- ✖ `extends(name, score);`
- ➡ `super(name, score);`

Question 52

```
import javax.swing.JOptionPane;
public class Practice
{
    public static void main(String[] args)
    {
     String fullName;
     char firstLetter;
    }
}
```

Accepting a `String` from a user is common practice. Using the above code, write the statements to accept a `String` response from a user. Prompt the user with "Enter your name". Then use the `charAt()` method to extract the first character of the `String`. Explain your answer.

Question 53

```
public class CostArray
{
    public static void main(String[] args)
    {
       double[] costs = new double[3];
       costs[0] = 5.00;
       costs[1] = 7.00;
       costs[2] = 9.00;
       System.out.println(costs[3]);
    }
}
```

Once the above code is compiled and executed, an error message is generated. Explain the error message that will result and explain the reason for the error. Write code to fix the error.

```
public class CostArray
{
public static void main (String[]args)
{
double costArray[] = { "5.00", "7.00", "9.00"};
System.out.println( costArray[]);
}
}
```

Question 55

```
import java.util.*;
import javax.swing.*;
public class binary_search
{
    public static void main(String[] args)
   {
            int myNums[]={2, 44, 5, 66, 78, 90, 23,
66};
            int point, find = 78;
            point = Arrays.binarySearch(myNums, find);
            System.out.println("Element found at index
" + point);
        } }
```

Using the above code, what output will be displayed when the program is executed? Describe how the `binarySearch()` method functions.

this method will basically make a search for a specific value assign to an array. based on the number assign to the variable point = 78, 78 is the number that the code will look for into the array. since it binary the starting point will be 0,1 type sort. in this case the value as already been assign so it st