

Rules for Array Instantiation:

1. At the time of array initializing an array compulsory we should specify the size otherwise we will get compile time error.
2. We can give array size as zero also.
3. We can't have negative values as array size.
4. The allowed data types to specify array size are byte, short, char, int.
5. The maximum allowed array size in java is maximum value of int size.
6. Whenever we are creating an array every element is initialized with default value automatically

Note: Anonymous array is an array without reference.

Eg: `new int[] { 10,20,30 }.length;`

How to access an array element?

- To access an array element, or a part of the array, you use a number called an index or a subscript.

Difference between length Vs length():

length	length()
It is the final variable applicable only for arrays.	It is a final method applicable for String objects.
It represents the size of the array	It returns the number of characters present in the String
<pre>int[] rollNumber=new int[30]; Sysout(rollNumber.length());//error Sysout(rollNumber.length());//30</pre>	<pre>String s="Java"; Sysout(s.length());//error Sysout(s.length());//4</pre>

Multidimensional Array

```
class Testarray3
{
public static void main(String args[])
{

int arr[][]={{ 1,2,3},{4,5,6},{7,8,9}};

for(int i=0;i<3;i++)
{
for(int j=0;j<3;j++)
{
System.out.print(arr[i][j]+" ");
}
System.out.println();
}
}
}
```

```
int[][] a;
int [][]a;
int a[][];
int[] []a;
int[] a[];
int []a[];
```

All are valid.(6 ways)