

1. The third element in an array has an index value of 2.

2. `int[] quantities = new int[20];`

3. `double[] heights = {1.65, 2.15, 4.95};`

4. `for (int element: grades) {  
 System.out.println(element);  
}`

6. When passing an entire array to a method, because arrays are reference data types, any changes made to the array in the method will affect the original array. The method will have access to all the elements within the array as the entire array was passed on. Only the array name is needed when specifying it as the parameters. When passing a single element in an array, any changes made to the element will not affect the original array. The method will only have access to that specific element. Both the array name and the index is needed when specifying it in the parameters.

7. Offset array indexes may be required when a range needs to be shifted in order to match a lower range of index values. For example, needing to start on an index value that is not 0.

8. `i`