

# CRT

1.

The index value of the third element is 2 since indexes start at 0

2.

```
Int [ ] quantities = new int[20];
```

3.

```
Double [ ] heights = {1.65, 2.15, 4.95};
```

4.

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

6.

When passing an entire array it gives the method access to the full array and allows it to modify the elements directly (arrays are passed by reference).

When passing a single element it provides the method with only a copy of the element's value (for primitive types), meaning changes to the element won't affect the original array.

7. Offset array indexes are used when you need to adjust the starting point of an array's traversal or calculations. For example, when skipping initial elements, handling subarrays, or managing data where specific offsets (like time zones or alignment in algorithms) are relevant.

8. It will display just "i" because `char.At(3)` shows the 3rd index of "Elaine" which is "i" since indexes start at 0