Question 1: `binarySearch` – Iterative Method

1. Write a method `binarySearch()` that takes an integer array and an integer parameter that specifies the value to look for, and <u>uses a loop</u> to implement the ***binary search algorithm*** to find the index of the integer within the integer array. The method declaration has been given.

```
public static int binarySearch(int[] arr, int target)
```

Question 2: `binarySearch` – Recursive Method

2. Write the same method as above, but **<u>using *recursion*</u>**. Notice we will use ***method overloading*** in order to implement the interface as defined above, yet allow the recursive method to take additional integer parameters `low` and `high` that will be required for implementation.

```
public static int binarySearch(int[] arr, int target) {
    return binarySearch(arr, target, 0, arr.length-1);
}
private static int binarySearch(int[] arr, int target,
                                int low, int high)
```