```java
public int binarySearch(int[] sortedArray, int key, int low, int high) {
    int middle = (low + high) / 2;

    if (high < low) {
        return -1;
    }

    if (key == sortedArray[middle]) {
        return middle;
    } else if (key < sortedArray[middle]) {
        return binarySearch(sortedArray, key, low, middle - 1);
    } else {
        return binarySearch(sortedArray, key, middle + 1, high);
    }
}
```