

## APPENDIX C — SAMPLE SEARCH AND SORT ALGORITHMS

### Sequential Search

The Sequential Search Algorithm below finds the index of a value in an array of integers as follows:

1. Traverse `elements` until `target` is located, or the end of `elements` is reached.
2. If `target` is located, return the index of `target` in `elements`;  
Otherwise return `-1`.

```
/**
 * Finds the index of a value in an array of integers.
 *
 * @param elements an array containing the items to be searched.
 * @param target the item to be found in elements.
 * @return an index of target in elements if found; -1 otherwise.
 */
public static int sequentialSearch(int[] elements, int target)
{
    for (int j = 0; j < elements.length; j++)
    {
        if (elements[j] == target)
        {
            return j;
        }
    }

    return -1;
}
```