





Challenge: Binary Search

Complete the doSearch function so that it implements a binary search, following the pseudo-code below (this pseudo-code was described in the previous article):

1. Let $\text{min} = 0$ and $\text{max} = n-1$.
2. If $\text{max} < \text{min}$, then stop: target is not present in array. Return -1.
3. Compute guess as the average of max and min, rounded down (so that it is an integer).
4. If $\text{array}[\text{guess}]$ equals target, then stop. You found it! Return guess.
5. If the guess was too low, that is, $\text{array}[\text{guess}] < \text{target}$, then set $\text{min} = \text{guess} + 1$.
6. Otherwise, the guess was too high. Set $\text{max} = \text{guess} - 1$.
7. Go back to step 2.

 Java	 Python	 C++	 JS
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```
import java.util.Arrays;
import java.lang.Integer;

class Solution {
    // Returns either the index of the location in the array,
    // or -1 if the array did not contain the targetValue
    public static int doSearch(int[] array, int targetValue) {
        int min = 0;
        System.out.println(Arrays.toString(array));
        int max = array.length - 1;
        int guess;

        return -1;
    }
};
```

