

```
import java.util.Random;

public class Main {
    public static void main(String[] args) {
        Random rnd = new Random();
        int[] A = new int[10];
        for (int i = 0; i < 10; i++) {
            A[i] = rnd.nextInt(100);
            System.out.print(A[i] + " ");
        }
        System.out.println();
        int max = A[0];
        System.out.println(findmax(A, 1, max));
    }

    static int findmax(int[] A, int i, int max) {
        if (i == A.length)
            return max;
        if (A[i] > max)
            max = A[i];
        return findmax(A, i + 1, max);
    }
}
```

```

static int binarySearch(int[] A, int target, int low, int high)
{
    if(low <= high && low != A.length) {
        int mid = (low + high) / 2;
        if (A[mid] == target)
            return mid;
        else if (target < A[mid])
            return binarySearch(A, target, low, mid - 1);
        else
            return binarySearch(A, target, mid + 1, high);
    }
    return -1;
}

```

3. Line "else return fibonacci(n-1) + fibonacci(n-2);" has two calls to fibonacci.
4. $8n \log n = 2n^2$
 $4 \log n = n$
 $4 = n / \log n$
 $n=16$ the point where they cross, but A and B same in this value. So we get $n \geq 17$.