

# Memoization

*There really isn't an 'r' there. We know that's odd.*



# So your recursive method is too slow

```
public class BSTcount {  
    public long howMany(int[] values) {  
        return helper(values.length);  
    }  
  
    public long helper(int n) {  
        // Solution goes here!  
    }  
}
```

```

public class BSTcount {
    HashMap<Integer, Long> myMemoPad;
    public BSTcount() {
        myMemoPad = new HashMap<Integer, Long>();
    }

    public long howMany(int[] values) {
        return helper(values.length);
    }

    public long helper(int n) {
        if (n <= 1) {
            return 1;
        }
        if (myMemoPad.containsKey(n)) {
            return myMemoPad.get(n);
        }
        // compute the result...
        myMemoPad.put(n, result);
        return result;
    }
}

```