

# Problem 771: Jewels and Stones

## Problem Information

**Difficulty:** [Easy](#)

**Acceptance Rate:** 0.00%

**Paid Only:** No

## Problem Description

You're given strings

jewels

representing the types of stones that are jewels, and

stones

representing the stones you have. Each character in

stones

is a type of stone you have. You want to know how many of the stones you have are also jewels.

Letters are case sensitive, so

"a"

is considered a different type of stone from

"A"

Example 1:

Input:

```
jewels = "aA", stones = "aAAbbbb"
```

Output:

3

Example 2:

Input:

```
jewels = "z", stones = "ZZ"
```

Output:

0

Constraints:

$1 \leq \text{jewels.length}, \text{stones.length} \leq 50$

jewels

and

stones

consist of only English letters.

All the characters of

jewels

are

unique

## Code Snippets

### C++:

```
class Solution {  
public:  
    int numJewelsInStones(string jewels, string stones) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int numJewelsInStones(String jewels, String stones) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def numJewelsInStones(self, jewels: str, stones: str) -> int:
```

### Python:

```
class Solution(object):  
    def numJewelsInStones(self, jewels, stones):  
        """  
        :type jewels: str  
        :type stones: str  
        :rtype: int  
        """
```

### JavaScript:

```
/**  
 * @param {string} jewels  
 * @param {string} stones
```

```
* @return {number}
*/
var numJewelsInStones = function(jewels, stones) {
};


```

### TypeScript:

```
function numJewelsInStones(jewels: string, stones: string): number {
};


```

### C#:

```
public class Solution {
    public int NumJewelsInStones(string jewels, string stones) {
        }
    }
}


```

### C:

```
int numJewelsInStones(char* jewels, char* stones) {
};


```

### Go:

```
func numJewelsInStones(jewels string, stones string) int {
};


```

### Kotlin:

```
class Solution {
    fun numJewelsInStones(jewels: String, stones: String): Int {
        }
    }
}


```

### Swift:

```
class Solution {  
func numJewelsInStones(_ jewels: String, _ stones: String) -> Int {  
}  
}  
}
```

### Rust:

```
impl Solution {  
pub fn num_jewels_in_stones(jewels: String, stones: String) -> i32 {  
}  
}  
}
```

### Ruby:

```
# @param {String} jewels  
# @param {String} stones  
# @return {Integer}  
def num_jewels_in_stones(jewels, stones)  
  
end
```

### PHP:

```
class Solution {  
  
/**  
 * @param String $jewels  
 * @param String $stones  
 * @return Integer  
 */  
function numJewelsInStones($jewels, $stones) {  
  
}  
}
```

### Dart:

```
class Solution {  
int numJewelsInStones(String jewels, String stones) {  
}  
}
```

```
}
```

### Scala:

```
object Solution {  
    def numJewelsInStones(jewels: String, stones: String): Int = {  
        }  
    }  
}
```

### Elixir:

```
defmodule Solution do  
    @spec num_jewels_in_stones(jewels :: String.t, stones :: String.t) :: integer  
    def num_jewels_in_stones(jewels, stones) do  
  
    end  
    end
```

### Erlang:

```
-spec num_jewels_in_stones(Jewels :: unicode:unicode_binary(), Stones ::  
    unicode:unicode_binary()) -> integer().  
num_jewels_in_stones(Jewels, Stones) ->  
.
```

### Racket:

```
(define/contract (num-jewels-in-stones jewels stones)  
  (-> string? string? exact-integer?)  
)
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Jewels and Stones  
 * Difficulty: Easy  
 * Tags: string, hash
```

```

*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/
class Solution {
public:
int numJewelsInStones(string jewels, string stones) {

}
};


```

### Java Solution:

```

/**
 * Problem: Jewels and Stones
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
*/
class Solution {
public int numJewelsInStones(String jewels, String stones) {

}
}


```

### Python3 Solution:

```

"""
Problem: Jewels and Stones
Difficulty: Easy
Tags: string, hash

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(n) for hash map
"""


```

```
"""
class Solution:

def numJewelsInStones(self, jewels: str, stones: str) -> int:
# TODO: Implement optimized solution
pass
```

### Python Solution:

```
class Solution(object):

def numJewelsInStones(self, jewels, stones):
"""
:type jewels: str
:type stones: str
:rtype: int
"""
```

### JavaScript Solution:

```
/**
 * Problem: Jewels and Stones
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
 */

/**
 * @param {string} jewels
 * @param {string} stones
 * @return {number}
 */
var numJewelsInStones = function(jewels, stones) {

};
```

### TypeScript Solution:

```

/**
 * Problem: Jewels and Stones
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
 */

function numJewelsInStones(jewels: string, stones: string): number {
}

```

### C# Solution:

```

/*
 * Problem: Jewels and Stones
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map
 */

public class Solution {
    public int NumJewelsInStones(string jewels, string stones) {
}
}

```

### C Solution:

```

/*
 * Problem: Jewels and Stones
 * Difficulty: Easy
 * Tags: string, hash
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(n) for hash map

```

```
*/  
  
int numJewelsInStones(char* jewels, char* stones) {  
  
}
```

### Go Solution:

```
// Problem: Jewels and Stones  
// Difficulty: Easy  
// Tags: string, hash  
//  
// Approach: String manipulation with hash map or two pointers  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(n) for hash map  
  
func numJewelsInStones(jewels string, stones string) int {  
  
}
```

### Kotlin Solution:

```
class Solution {  
    fun numJewelsInStones(jewels: String, stones: String): Int {  
  
    }  
}
```

### Swift Solution:

```
class Solution {  
    func numJewelsInStones(_ jewels: String, _ stones: String) -> Int {  
  
    }  
}
```

### Rust Solution:

```
// Problem: Jewels and Stones  
// Difficulty: Easy  
// Tags: string, hash
```

```

// 
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(n) for hash map

impl Solution {
    pub fn num_jewels_in_stones(jewels: String, stones: String) -> i32 {
        }

    }
}

```

### Ruby Solution:

```

# @param {String} jewels
# @param {String} stones
# @return {Integer}
def num_jewels_in_stones(jewels, stones)

end

```

### PHP Solution:

```

class Solution {

    /**
     * @param String $jewels
     * @param String $stones
     * @return Integer
     */
    function numJewelsInStones($jewels, $stones) {
        }

    }
}

```

### Dart Solution:

```

class Solution {
    int numJewelsInStones(String jewels, String stones) {
        }

    }
}

```

### **Scala Solution:**

```
object Solution {  
    def numJewelsInStones(jewels: String, stones: String): Int = {  
        }  
    }  
}
```

### **Elixir Solution:**

```
defmodule Solution do  
  @spec num_jewels_in_stones(jewels :: String.t, stones :: String.t) :: integer  
  def num_jewels_in_stones(jewels, stones) do  
  
  end  
  end
```

### **Erlang Solution:**

```
-spec num_jewels_in_stones(Jewels :: unicode:unicode_binary(), Stones ::  
  unicode:unicode_binary()) -> integer().  
num_jewels_in_stones(Jewels, Stones) ->  
.
```

### **Racket Solution:**

```
(define/contract (num-jewels-in-stones jewels stones)  
  (-> string? string? exact-integer?)  
)
```