



# Set .intersection() Operation ☆

74/115 challenges solved

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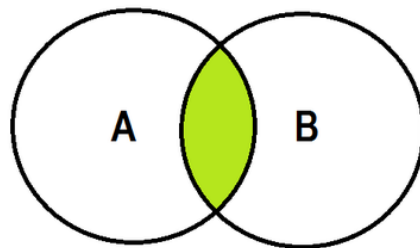
Problem

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**A.intersection(B) or A&B**

By DOSHI

## .intersection()

The `.intersection()` operator returns the intersection of a set and the set of elements in an iterable. Sometimes, the `&` operator is used in place of the `.intersection()` operator, but it only operates on the set of elements in `set`.

The set is immutable to the `.intersection()` operation (or `&` operation).

```
>>> s = set("Hacker")
>>> print s.intersection("Rank")
set(['a', 'k'])

>>> print s.intersection(set(['R', 'a', 'n', 'k']))
set(['a', 'k'])

>>> print s.intersection(['R', 'a', 'n', 'k'])
set(['a', 'k'])

>>> print s.intersection(enumerate(['R', 'a', 'n', 'k']))
set([])

>>> print s.intersection({"Rank":1})
set([])

>>> s & set("Rank")
set(['a', 'k'])
```

Author

DOSHI

Difficulty

Easy

Max Score

10

Submitted By

23030

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**Task**

The students of District College have subscriptions to *English* and *French* newspapers. Some students have subscribed only to *English*, some have subscribed only to *French*, and some have subscribed to both newspapers.

You are given two sets of student roll numbers. One set has subscribed to the *English* newspaper, one set has subscribed to the *French* newspaper. Your task is to find the total number of students who have subscribed to *both* newspapers.

**Input Format**

The first line contains *n*, the number of students who have subscribed to the *English* newspaper.

The second line contains *n* space separated roll numbers of those students.

The third line contains *b*, the number of students who have subscribed to the *French* newspaper.

The fourth line contains *b* space separated roll numbers of those students.

**Constraints**

$0 < \text{Total number of students in college} < 1000$

**Output Format**

Output the total number of students who have subscriptions to **both** *English* and *French* newspapers.

**Sample Input**

```
9
1 2 3 4 5 6 7 8 9
9
10 1 2 3 11 21 55 6 8
```

**Sample Output**

```
5
```

**Explanation**

The roll numbers of students who have *both* subscriptions:

**1, 2, 3, 6** and **8**.

Hence, the total is **5** students.

Current Buffer (saved locally, editable)



Python 3




```
1 n=int(input())
2 a=set(input().split())
3 m=int(input())
4 b=set(input().split())
5 print(len(a.intersection(b)))
```

 Upload Code as File

☐ Test against custom input

Run Code

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You have earned 10.00 points!

74/115 challenges solved.

64%

### Congratulations

You solved this challenge. Would you like to challenge your friends?



Next Challenge


 Testcase 0

 Testcase 1

 Testcase 2

 Testcase 3

6 Testcases

Input (stdin)	Download	Expected Output	Download
9 1 2 3 4 5 6 7 8 9 9 10 1 2 3 11 21 55 6 8		5	
Compiler Message			
Success			