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Practice > Python > Sets > Set .discard(), .remove() & .pop()

Set .discard(), .remove() & .pop() ☆

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.remove(x)

This operation removes element **x** from the set.

If element **x** does not exist, it raises a `KeyError`.

The *.remove(x)* operation returns `None`.

Example

```
>>> s = set([1, 2, 3, 4, 5, 6, 7, 8, 9])
>>> s.remove(5)
>>> print s
set([1, 2, 3, 4, 6, 7, 8, 9])
>>> print s.remove(4)
None
>>> print s
set([1, 2, 3, 6, 7, 8, 9])
>>> s.remove(0)
KeyError: 0
```

.discard(x)

This operation also removes element **x** from the set.

If element **x** does not exist, it **does not** raise a `KeyError`.

The *.discard(x)* operation returns `None`.

Example

```
>>> s = set([1, 2, 3, 4, 5, 6, 7, 8, 9])
>>> s.discard(5)
>>> print s
set([1, 2, 3, 4, 6, 7, 8, 9])
>>> print s.discard(4)
None
>>> print s
set([1, 2, 3, 6, 7, 8, 9])
>>> s.discard(0)
>>> print s
set([1, 2, 3, 6, 7, 8, 9])
```

.pop()

Author	DOSHI
Difficulty	Easy
Max Score	10
Submitted By	22988

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This operation removes and return an arbitrary element from the set.

If there are no elements to remove, it raises a `KeyError`.

Example

```
>>> s = set([1])
>>> print s.pop()
1
>>> print s
set([])
>>> print s.pop()
KeyError: pop from an empty set
```

Task

You have a non-empty set s, and you have to execute N commands given in N lines.

The commands will be *pop, remove* and *discard*.

Input Format

The first line contains integer n, the number of elements in the set s.

The second line contains n space separated elements of set s. All of the elements are non-negative integers, less than or equal to 9.

The third line contains integer N, the number of commands.

The next N lines contains either *pop, remove* and/or *discard* commands followed by their associated value.

Constraints

$0 < n < 20$

$0 < N < 20$

Output Format

Print the sum of the elements of set s on a single line.

Sample Input

```
9
1 2 3 4 5 6 7 8 9
10
pop
remove 9
discard 9
discard 8
remove 7
pop
discard 6
remove 5
pop
discard 5
```
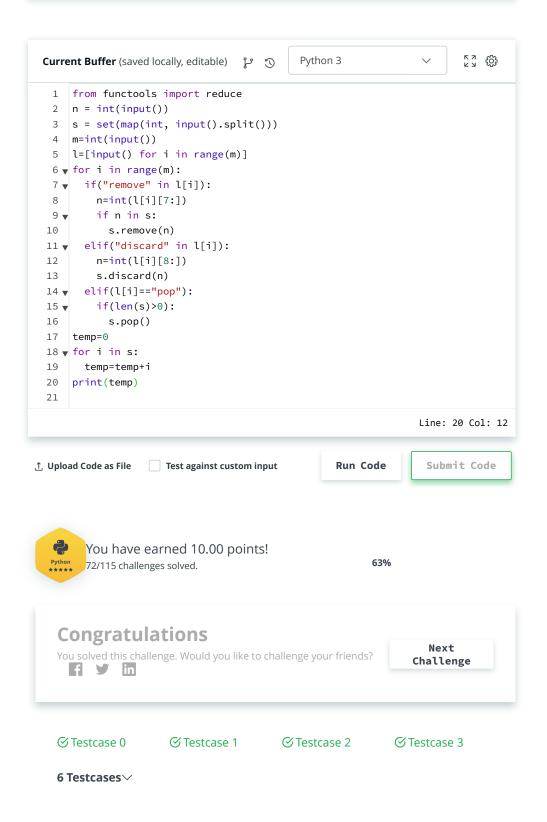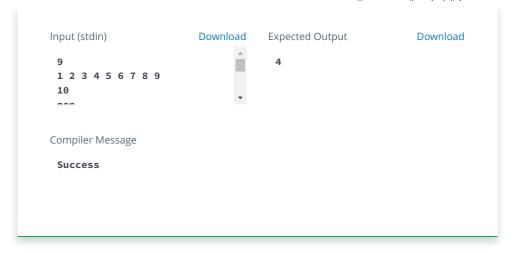
Sample Output

```
4
```

Explanation

After completing these 10 operations on the set, we get $set([4])$. Hence, the sum is 4.

Note: Convert the elements of set *s* to *integers* while you are assigning them. To ensure the proper input of the set, we have added the first two lines of code to the editor.

Current Buffer (saved locally, editable)   Python 3

```python
from functools import reduce
n = int(input())
s = set(map(int, input().split()))
m=int(input())
l=[input() for i in range(m)]
for i in range(m):
  if("remove" in l[i]):
    n=int(l[i][7:])
    if n in s:
      s.remove(n)
  elif("discard" in l[i]):
    n=int(l[i][8:])
    s.discard(n)
  elif(l[i]=="pop"):
    if(len(s)>0):
      s.pop()
temp=0
for i in s:
  temp=temp+i
print(temp)
```

Line: 20 Col: 12

⬆ Upload Code as File   ☐ Test against custom input   **Run Code**   **Submit Code**

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★★★★★

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✓ Testcase 0   ✓ Testcase 1   ✓ Testcase 2   ✓ Testcase 3

6 Testcases ⌄

Input (stdin)   Download   Expected Output   Download

9   4
1 2 3 4 5 6 7 8 9
10

Compiler Message

Success