



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()

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.

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Language

Python 3



```
1 n = int(input())
2 s = set(map(int, input().split()))
3 N = int(input())
4 for _ in range(N):
5     cmd_par = input().split()
6     if cmd_par[0] == "pop":
7         s.pop()
8     if cmd_par[0] == "remove":
```

```
9         s.remove(int(cmd_par[1]))
10     if cmd_par[0] == "discard":
11         s.discard(int(cmd_par[1]))
12     print(sum(s))
13
```

EMACS

Line: 13 Col: 1

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✔ Test case 0

Compiler Message

✔ Test case 1 

Success


✔ Test case 2 

Input (stdin)

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✔ Test case 3 

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

✔ Test case 4 

<div><div><div><div><div></div><div></div></div><div>Test case 5</div><div><div></div></div></div></div></div>	6	discard 9
	7	discard 8
	8	remove 7
	9	pop