Set .discard(), .remove() & .pop()

Problem Statement

.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.