



# Check Strict Superset ★

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You are given a set  $A$  and  $n$  other sets.

Your job is to find whether set  $A$  is a strict superset of each of the  $N$  sets.

Print True, if  $A$  is a strict superset of each of the  $N$  sets. Otherwise, print False.

A strict superset has at least one element that does not exist in its subset.

### Example

Set  $\{1, 3, 4\}$  is a strict superset of set  $\{1, 3\}$ .

Set  $\{1, 3, 4\}$  is not a strict superset of set  $\{1, 3, 4\}$ .

Set  $\{1, 3, 4\}$  is not a strict superset of set  $\{1, 3, 5\}$ .

### Input Format

The first line contains the space separated elements of set  $A$ .

The second line contains integer  $n$ , the number of other sets.

The next  $n$  lines contains the space separated elements of the other sets.

### Constraints

- $0 < \text{len}(\text{set}(A)) < 501$
- $0 < N < 21$
- $0 < \text{len}(\text{otherSets}) < 101$

### Output Format

Print True if set  $A$  is a strict superset of all other  $N$  sets. Otherwise, print False.

### Sample Input 0

```
1 2 3 4 5 6 7 8 9 10 11 12 23 45 84 78
2
1 2 3 4 5
100 11 12
```

### Sample Output 0

```
False
```

### Explanation 0

Set  $A$  is the strict superset of the set  $\{1, 2, 3, 4, 5\}$  but not of the set  $\{100, 11, 12\}$  because 100 is not in set  $A$ .

Hence, the output is False.

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Python 3



```
1 def is_subset(a, s):
2     if len(s) > len(a):
3         return
4
5     return len(s.difference(a)) == 0
6
7 def is_strict_superset(a, sets):
8     for s in sets:
9         if not is_subset(a, s) or not len(a.difference(s)) >= 1:
10            return False
11
12    return True
13
14 if __name__ == '__main__':
15     a = set(map(int, input().split()))
16
17     n = int(input())
18
19     sets = []
20
21     for _ in range(n):
22         new_set = set(map(int, input().split()))
23
24         sets.append(new_set)
```

Line: 27 Col: 1

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### Test case 0

### Test case 1

### Test case 2

### Test case 3

### Test case 4

### Test case 5

#### Compiler Message

Success

#### Input (stdin)

```
1 1 2 3 4 5 6 7 8 9 10 11 12 23 45 84 78
2 2
3 1 2 3 4 5
4 100 11 12
```

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#### Expected Output

```
1 False
```

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