

# [CS 11] Prac 2f – Range-Containing Sets

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[oj.dcs.upd.edu.ph/problem/cs11prac2f](https://oj.dcs.upd.edu.ph/problem/cs11prac2f)

Cheatsheet is available here: <https://oj.dcs.upd.edu.ph/cs11cheatsheet/>

## Problem Statement

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You are given two integers  $xx$  and  $yy$ .

Given a sequence of sets, return the sets among those that contain *all integers from  $xx$  to  $yy$ , inclusive*.

## Task Details

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Implement a function called `sets_containing_range`:

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```
def sets_containing_range(x, y, intsets):
```

- `x`—`int`
- `y`—`int`
- `intsets`—`tuple` of `frozensets` of `ints`

Return a `tuple` of `frozensets` of `ints`.

## Restrictions

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(See 2a for more restrictions)

For this problem:

- Up to 11 function definition is allowed.
- Recursion is **disallowed**. (The recursion limit has been greatly reduced.)
- Comprehensions are allowed.
- `range` is allowed.
- The source code limit is 500500.

## Example Calls

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Example 1 Function Call

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```
sets_containing_range(3, 6, (  
    frozenset((3, 4, 5, 6, 7)),  
    frozenset((2, 3, 4, 5, 6, 8)),  
    frozenset((1, 2, 3, 5, 6, 7, 8)),  
    frozenset(),  
    frozenset((3, 4, 5, 6)),  
    frozenset((1, 2, 3, 4, 5)),  
    frozenset((4, 5, 6, 7, 8)),  
    frozenset((1, 2, 3, 4, 5, 6, 7, 8)),  
))
```

#### Example 1 Return Value

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```
(  
    frozenset((3, 4, 5, 6, 7)),  
    frozenset((2, 3, 4, 5, 6, 8)),  
    frozenset((3, 4, 5, 6)),  
    frozenset((1, 2, 3, 4, 5, 6, 7, 8)),  
)
```

#### Constraints

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- The function `sets_containing_range` will be called at most 100100 times.
- Each `frozenset` in the input has at most 4040 elements.
- Each `int` in the input has absolute value at most  $10^20$ .
- $y - x \leq 10$

#### Scoring

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- You get 100100 ❤️ points if you solve all test cases.