Problem 970: Powerful Integers

Problem Information

Difficulty: Medium
Acceptance Rate: 44.40%
Paid Only: No
Tags: Hash Table, Math, Enumeration

Problem Description

Given three integers `x`, `y`, and `bound`, return _a list of all the**powerful integers** that have a value less than or equal to_ `bound`.

An integer is **powerful** if it can be represented as `xi + yj` for some integers `i >= 0` and `j >= 0`.

You may return the answer in **any order**. In your answer, each value should occur **at most once**.

Example 1:

Input: x = 2, y = 3, bound = 10 **Output:** [2,3,4,5,7,9,10] **Explanation:** 2 = 20 + 30 3 = 21 + 30 4 = 20 + 31 5 = 21 + 31 7 = 22 + 31 9 = 23 + 30 10 = 20 + 32

Example 2:

Input: x = 3, y = 5, bound = 15 **Output:** [2,4,6,8,10,14]

Constraints:

* `1 <= x, y <= 100` * `0 <= bound <= 106`

Code Snippets

C++:

```
class Solution {
public:
vector<int> powerfulIntegers(int x, int y, int bound) {

}
};
```

Java:

```
class Solution {
public List<Integer> powerfulIntegers(int x, int y, int bound) {

}
}
```

Python3:

```
class Solution:
def powerfulIntegers(self, x: int, y: int, bound: int) -> List[int]:
```