Problem 2591: Distribute Money to Maximum Children

Problem Information

Difficulty: Easy
Acceptance Rate: 20.19%
Paid Only: No
Tags: Math, Greedy

Problem Description

You are given an integer `money` denoting the amount of money (in dollars) that you have and another integer `children` denoting the number of children that you must distribute the money to.

You have to distribute the money according to the following rules:

* All money must be distributed. * Everyone must receive at least `1` dollar. * Nobody receives `4` dollars.

Return _the**maximum** number of children who may receive **exactly** _`8` _dollars if you distribute the money according to the aforementioned rules_. If there is no way to distribute the money, return `-1`.

Example 1:

Input: money = 20, children = 3 **Output:** 1 **Explanation:** The maximum number of children with 8 dollars will be 1. One of the ways to distribute the money is: - 8 dollars to the first child. - 9 dollars to the second child. - 3 dollars to the third child. It can be proven that no distribution exists such that number of children getting 8 dollars is greater than 1.

Example 2:

Input: money = 16, children = 2 **Output:** 2 **Explanation:** Each child can be given 8 dollars.

Constraints:

* `1 <= money <= 200` * `2 <= children <= 30`

Code Snippets

C++:

```
class Solution {
public:
int distMoney(int money, int children) {

}
};
```

Java:

```
class Solution {
public int distMoney(int money, int children) {

}
}
```

Python3:

```
class Solution:
def distMoney(self, money: int, children: int) -> int:
```