

Problem 1056: Confusing Number

Problem Information

Difficulty: Easy

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

A

confusing number

is a number that when rotated

180

degrees becomes a different number with

each digit valid

.

We can rotate digits of a number by

180

degrees to form new digits.

When

0

,

1

,

6

,

8

, and

9

are rotated

180

degrees, they become

0

,

1

,

9

,

8

, and

6

respectively.

When

2

,

3

,

4

,

5

, and

7

are rotated

180

degrees, they become

invalid

.

Note that after rotating a number, we can ignore leading zeros.

For example, after rotating

8000

, we have

0008

which is considered as just

8

.

Given an integer

n

, return

true

if it is a

confusing number

, or

false

otherwise

.

Example 1:

6 $\xrightarrow{\text{rotate}}$ 9

Input:

$n = 6$

Output:

true

Explanation:

We get 9 after rotating 6, 9 is a valid number, and $9 \neq 6$.

Example 2:

89 $\xrightarrow{\text{rotate}}$ 68

Input:

$n = 89$

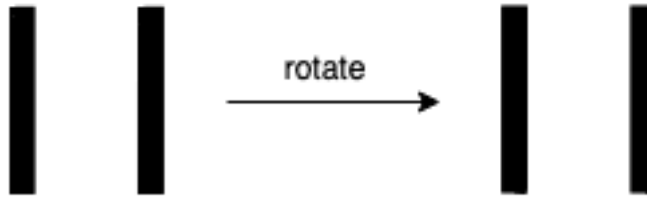
Output:

true

Explanation:

We get 68 after rotating 89, 68 is a valid number and $68 \neq 89$.

Example 3:



Input:

$n = 11$

Output:

false

Explanation:

We get 11 after rotating 11, 11 is a valid number but the value remains the same, thus 11 is not a confusing number

Constraints:

$0 \leq n \leq 10$

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Code Snippets

C++:

```
class Solution {  
public:  
    bool confusingNumber(int n) {  
  
    }  
};
```

Java:

```

class Solution {
public boolean confusingNumber(int n) {

}

}

```

Python3:

```

class Solution:
def confusingNumber(self, n: int) -> bool:

```

Python:

```

class Solution(object):
def confusingNumber(self, n):
"""
:type n: int
:rtype: bool
"""

```

JavaScript:

```

/**
 * @param {number} n
 * @return {boolean}
 */
var confusingNumber = function(n) {

};

```

TypeScript:

```

function confusingNumber(n: number): boolean {

};

```

C#:

```

public class Solution {
public bool ConfusingNumber(int n) {

}

}

```

C:

```
bool confusingNumber(int n) {  
  
}
```

Go:

```
func confusingNumber(n int) bool {  
  
}
```

Kotlin:

```
class Solution {  
    fun confusingNumber(n: Int): Boolean {  
  
    }  
}
```

Swift:

```
class Solution {  
    func confusingNumber(_ n: Int) -> Bool {  
  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn confusing_number(n: i32) -> bool {  
  
    }  
}
```

Ruby:

```
# @param {Integer} n  
# @return {Boolean}  
def confusing_number(n)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param Integer $n  
     * @return Boolean  
     */  
    function confusingNumber($n) {  
  
    }  
}
```

Dart:

```
class Solution {  
    bool confusingNumber(int n) {  
  
    }  
}
```

Scala:

```
object Solution {  
    def confusingNumber(n: Int): Boolean = {  
  
    }  
}
```

Elixir:

```
defmodule Solution do  
    @spec confusing_number(n :: integer) :: boolean  
    def confusing_number(n) do  
  
    end  
end
```

Erlang:

```
-spec confusing_number(N :: integer()) -> boolean().  
confusing_number(N) ->  
.
```

Racket:

```
(define/contract (confusing-number n)
  (-> exact-integer? boolean?)
)
```

Solutions

C++ Solution:

```
/*
 * Problem: Confusing Number
 * Difficulty: Easy
 * Tags: math
 *
 * Approach: Optimized algorithm based on problem constraints
 * Time Complexity: O(n) to O(n^2) depending on approach
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    bool confusingNumber(int n) {

    }
};
```

Java Solution:

```
/**
 * Problem: Confusing Number
 * Difficulty: Easy
 * Tags: math
 *
 * Approach: Optimized algorithm based on problem constraints
 * Time Complexity: O(n) to O(n^2) depending on approach
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
    public boolean confusingNumber(int n) {
```

```
}  
}
```

Python3 Solution:

```
"""  
Problem: Confusing Number  
Difficulty: Easy  
Tags: math  
  
Approach: Optimized algorithm based on problem constraints  
Time Complexity: O(n) to O(n^2) depending on approach  
Space Complexity: O(1) to O(n) depending on approach  
"""  
  
class Solution:  
    def confusingNumber(self, n: int) -> bool:  
        # TODO: Implement optimized solution  
        pass
```

Python Solution:

```
class Solution(object):  
    def confusingNumber(self, n):  
        """  
        :type n: int  
        :rtype: bool  
        """
```

JavaScript Solution:

```
/**  
 * Problem: Confusing Number  
 * Difficulty: Easy  
 * Tags: math  
 *  
 * Approach: Optimized algorithm based on problem constraints  
 * Time Complexity: O(n) to O(n^2) depending on approach  
 * Space Complexity: O(1) to O(n) depending on approach  
 */
```

```

/**
 * @param {number} n
 * @return {boolean}
 */
var confusingNumber = function(n) {

};

```

TypeScript Solution:

```

/**
 * Problem: Confusing Number
 * Difficulty: Easy
 * Tags: math
 *
 * Approach: Optimized algorithm based on problem constraints
 * Time Complexity: O(n) to O(n^2) depending on approach
 * Space Complexity: O(1) to O(n) depending on approach
 */

function confusingNumber(n: number): boolean {

};

```

C# Solution:

```

/*
 * Problem: Confusing Number
 * Difficulty: Easy
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 *
 * Approach: Optimized algorithm based on problem constraints
 * Time Complexity: O(n) to O(n^2) depending on approach
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 */

public class Solution {
    public bool ConfusingNumber(int n) {

    }
}

```

```
}
```

C Solution:

```
/*
 * Problem: Confusing Number
 * Difficulty: Easy
 * Tags: math
 *
 * Approach: Optimized algorithm based on problem constraints
 * Time Complexity: O(n) to O(n^2) depending on approach
 * Space Complexity: O(1) to O(n) depending on approach
 */

bool confusingNumber(int n) {

}
```

Go Solution:

```
// Problem: Confusing Number
// Difficulty: Easy
// Tags: math
//
// Approach: Optimized algorithm based on problem constraints
// Time Complexity: O(n) to O(n^2) depending on approach
// Space Complexity: O(1) to O(n) depending on approach

func confusingNumber(n int) bool {

}
```

Kotlin Solution:

```
class Solution {
    fun confusingNumber(n: Int): Boolean {

    }
}
```

Swift Solution:

```

class Solution {
func confusingNumber(_ n: Int) -> Bool {

}

}

```

Rust Solution:

```

// Problem: Confusing Number
// Difficulty: Easy
// Tags: math
//
// Approach: Optimized algorithm based on problem constraints
// Time Complexity: O(n) to O(n^2) depending on approach
// Space Complexity: O(1) to O(n) depending on approach

impl Solution {
pub fn confusing_number(n: i32) -> bool {

}

}

```

Ruby Solution:

```

# @param {Integer} n
# @return {Boolean}
def confusing_number(n)

end

```

PHP Solution:

```

class Solution {

/**
 * @param Integer $n
 * @return Boolean
 */
function confusingNumber($n) {

}

}

```

Dart Solution:

```
class Solution {  
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Scala Solution:

```
object Solution {  
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}
```

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