Hint in the file boat

From the file boat, we see that we have to find printable characters from collatz conjecture of a number. This is a very interesting conjecture and its domain is positive numbers. Since this hasn't been proved or disproved (for all positive numbers), it is an unsolvable problem. Anyway, this works till the number 2 to the power 68. According to the conjecture, for a positive odd number n, we have to perform the next calculation as n = 3n + 1. Similarly, for a positive even number, it should be n = n / 2. Doing this iteration, we will reach number 1 and we can stop.

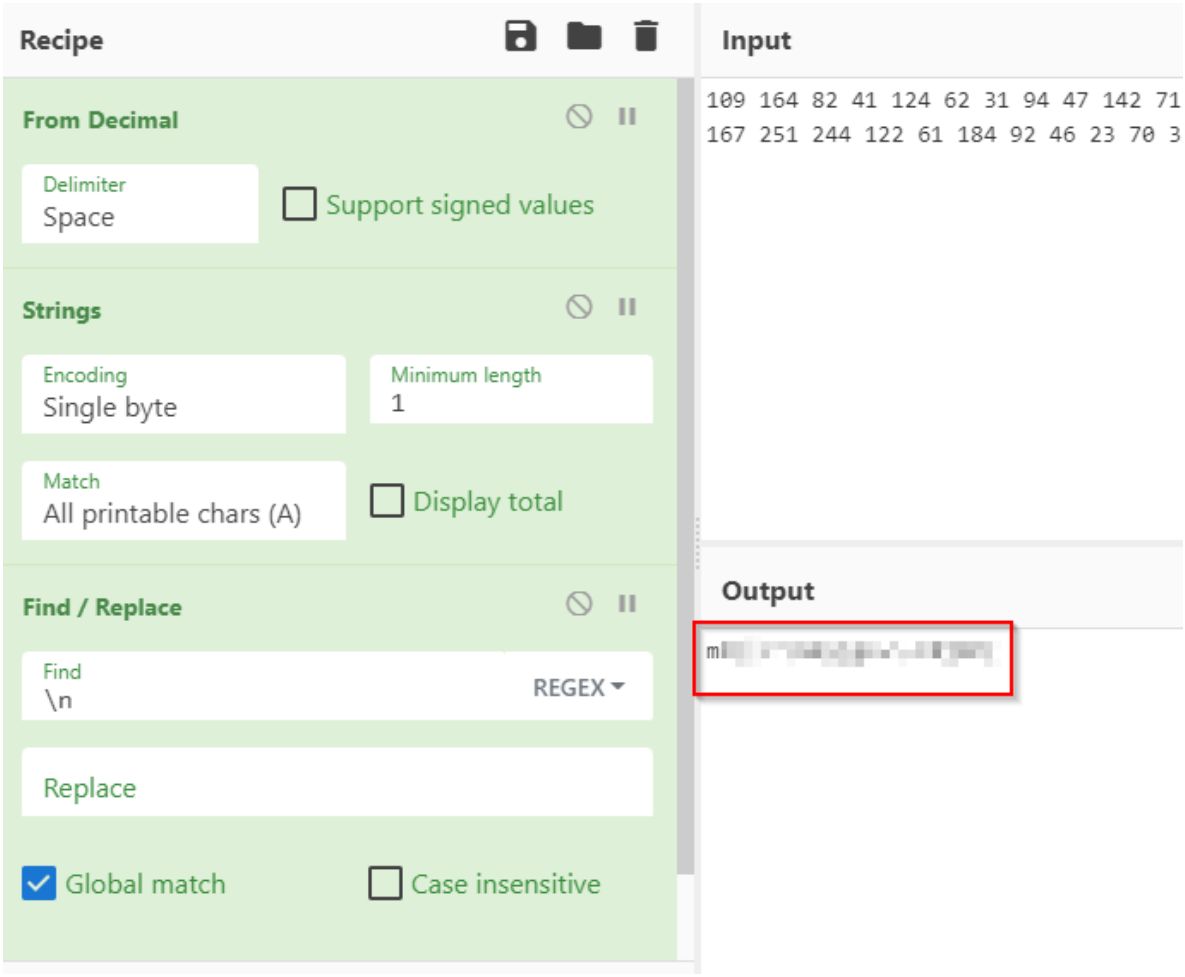
So, here, we have to find the collatz conjecture of the 29th prime number i.e. 109. For this, I wrote a simple python script.

```
┌──(kali㉿kali)-[~/vulnhub/vikings]
└─$ cat collatz.py
n = 109
str_n = str(n)

while n != 1:
    if n % 2 == 1:
        n = 3 * n + 1
    else:
        n = int(n / 2)
    if n <= 255:
        str_n += ' ' + str(n)

print(str_n)
```

The python script to print decimal integers of the series

The script that I created will print all the numbers that are less than 256 (ASCII) based on the conjecture. After this, I could send the numbers to Cyber Chef to get the password of the user ragnar.

python3 collatz.py | xclip -sel clip



Password of the user ragnar