# 1/3 proof of Collatz problem 

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Abstract<br>I show the 3 rd possibility of Collatz problem.

## 1

definition(Collatz problem)
Take some natural number, if this number is odd, times 3 and plus 1. If this number is even devide by 2. Repeat this prosess, I get Collatzs sequence. The Collatz problem is that this Collatz sequence eventually goes to 1 .

## Statement1

Collatz sequence does not go to infinity for all natural numbers, or does not make cycle pattern, then all Collatz sequence goes to 1 .

