

14. What's the longest Collatz sequence starting at less than 1 million?

Loop through each sequence and store the length if it's longer than the previous sequence.

```
def collatz(n)
  sequence-len = 1
  loop do
    if n.even?
      n /= 2
      sequence-len += 1
    next
  else
    return sequence-len if n == 1
    n = 3 * n + 1
    sequence-len += 1
  next
end
end
end
```

```
def main-loop(n)
  longest = 0
  starting-num = 0
  2 upto (n-1) do |num|
    length = collatz(num)
    if length > longest
      longest = length
      starting-num = num
    end
  end
  longest
end
```