



2 -> ['a']

22 -> ['aa', 'b']

222 -> ['ab', 'ba', 'c', 'aaa']

2222 -> ['ca', 'ac', 'baa', 'aaaa', 'aab', 'bb', 'aba']

22222 -> ['aaaaa', 'cb', 'aaba', 'bc', 'abaa',
'aaab', 'abb', 'caa', 'aac', 'bab', 'aca', 'bba',
'baaa']

Observation:

1 -> 1

2 -> 2

3 -> 4

4 -> 7

5 -> 13

6 -> 24

7 -> 44

8 -> 81

9 -> 149

N -> ?

$f(n) \rightarrow y$

$F(1) \rightarrow 1$

$F(2) \rightarrow 2$

$F(3) \rightarrow 4$

$F(4) \rightarrow F(3) + F(2) + F(1)$

$F(5) \rightarrow F(4) + F(3) + F(2)$

$F(6) \rightarrow F(5) + F(4) + F(3)$

$F(7) \rightarrow F(6) + F(5) + F(4)$

$F(8) \rightarrow F(7) + F(6) + F(5)$

$F(n) \rightarrow F(n-1) + F(n-2) + F(n-3)$