Pseudocode:

get\_number()

GET number

RETURN number

francois( number )

IF number == 1 #1

RETURN 2

ELSE IF number == 2 #2

RETURN 1

ELSE #3

RETURN francois(number - 1) + francois(number - 2)

display\_francois( final\_number )

PUT final\_number #4

main()

number = get\_number()

final\_number = francois( number )

display\_francois( final\_number )

main()

Algorithmic Efficiency: O(2^N), due to it’s recursive nature in the end of the function

Trace:

TEST CASE: 2

|  |  |
| --- | --- |
|  | Number |
| #1 | 2 |
| #2 | 1 |
| #4 | 1 |
|  |  |