



Consider the following programming problem:

Given a positive integer N . Calculate the Fibonacci series till the number N . If N is a part of the series, include N as well.

Please provide a solution for this problem in the R language.

Vorschläge anzeigen ▾



Code-Snippet

```
fibonacci_series <- function(N) {  
  # Initialize the series with the first two Fibonacci numbers  
  series <- c(0, 1)  
  
  # Generate the series until the next number exceeds N  
  while (tail(series, 1) < N) {  
    series <- c(series, sum(tail(series, 2)))  
  }  
  
  # If N is in the series, include it  
  if (N %in% series) {  
    series <- series[1:which(series == N)]  
  }  
  
  return(series)  
}  
  
# Example usage  
N <- 20  
result <- fibonacci_series(N)  
print(result)
```

Verwende den Code [mit Vorsicht](#).

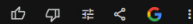


This code defines a function `fibonacci_series` that takes a positive integer N as input and returns the Fibonacci series up to that number.

Here's how the function works:

1. **Initialize the series:** The series is initialized with the first two Fibonacci numbers, 0 and 1.
2. **Generate the series:** A `while` loop is used to generate the series until the next number exceeds N . In each iteration, the next Fibonacci number is calculated by adding the last two numbers in the series.
3. **Include N if necessary:** If N is found in the series, the series is truncated to include only the numbers up to N .
4. **Return the series:** The final series is returned.

The example usage demonstrates how to call the function with a specific value of N and print the resulting Fibonacci series.



Prompt hier eingeben



Gemini zeigt möglicherweise fehlerhafte Informationen an, z. B. zu Personen. Überprüfe daher die Antworten. [Datenschutz & Gemini-Apps](#)