

Given two positive integers A and B,  
find GCD of A and B.

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

Vorschläge anzeigen

### R Function to Calculate GCD

Here's an R function that implements the Euclidean algorithm to find the greatest common divisor (GCD) of two positive integers:

#### Code-Snippet

```
gcd <- function(a, b) {  
  while (b != 0) {  
    temp <- b  
    b <- a %% b  
    a <- temp  
  }  
  return(a)  
}
```

Verwende den Code [mit Vorsicht](#).


#### Explanation:

1. `gcd <- function(a, b)` : Defines a function named `gcd` that takes two arguments, `a` and `b`.
2. `while (b != 0)` : The loop continues as long as `b` is not zero.
3. `temp <- b` : Temporarily stores the value of `b`.
4. `b <- a %% b` : Updates `b` to the remainder of `a` divided by `b`.
5. `a <- temp` : Updates `a` with the stored value of `b`.
6. `return(a)` : Once the loop terminates (when `b` becomes 0), the function returns the value of `a`, which is the GCD.

#### Example Usage:

#### Code-Snippet

```
# Find the GCD of 12 and 18  
result <- gcd(12, 18)  
print(result) # Output: 6
```

Verwende den Code [mit Vorsicht](#).


This function effectively calculates the GCD using the Euclidean algorithm, which is a well-known and efficient method for this task.

Prompt hier eingeben



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