Exercise 6

1. Write a function factorial(n) that returns the factorial of a given number n using recursion.
2. Write a recursive function sum_natural(n) that returns the sum of the first n natural numbers.
3. Write a recursive function print_numbers(n) that prints numbers from 1 to n.
4. Write a recursive function power(base, exp) that calculates base raised to the power exp.
5. Write a recursive function fibonacci(n) that returns the n-th Fibonacci number.
6. Write a recursive function is_palindrome(s) that checks if a given string s is a palindrome.
7. Write a recursive function reverse_string(s) that returns the reverse of a given string s.
8. Write a recursive function gcd(a, b) that returns the greatest common divisor of two numbers a and b using the Euclidean algorithm.
9. Write a recursive function tower_of_hanoi(n, source, target, auxiliary) that prints the steps to solve the Tower of Hanoi problem for n disks.