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Assignment 1

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II.2415 Advanced Algorithmic & Programming

Professor in the course: Dr. Har Aziz SINGH

Due: not specified yet

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# Tutorial Course 1

## Part 1: Factorial

1. Recursive solution

Pseudo code:

factorialRecursive(n)

Input: One integer

Output: One integer

if n == 0 then

return 1

else

return factorialRecursive(n-1)

Implementation

public BigInteger calculate(int n) {

        if (n == 0) return BigInteger.ONE;

        else return BigInteger.valueOf(n).multiply(calculate(n-1));

    }

factorialIterative(n)

      Input: One integer

      Output: One integer

      for (int i = n; i > 0; --i) do

         return 1

      else

         return factorialRecursive(n-1)

# Table of resources

*This list of resources is based on the APA 7th style. The mentioned styled is described on the following website:* [*https://www.kildekompasset.no/en/*](https://www.kildekompasset.no/en/) *(downloaded 01.02.2025)*