# Homework: Intro to Ethereum and Smart Contracts

## Bad Coding Task or Why Loops are “Forbidden”

Write a smart contract to **calculate** the **factorial** of a given **number**. Create two **different** solutions (**iterative** and **recursive**)

* + Do you observe any obvious problems?
  + How to prevent it?
  + Compare both solutions

## Random number generation

Write a smart contract which provides a function that generates a random number. For that purpose you must use all appropriate (in your opinion) properties from **43** and **44** slides. What kind of problems may occur? Why?