



# EXERCISES — Factorial

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version #



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## Contents

1	Factorial	3
1.1	Goal . . . . .	3

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# 1 Factorial

**Files to submit:**

- fact/fact.c

**Authorized headers:** You are only allowed to use the functions defined in the following headers:

- stddef.h
- err.h
- errno.h
- assert.h

## 1.1 Goal

Implement the function `fact` with the following prototype:

```
unsigned long fact(unsigned n)
```

It computes the factorial of  $n$  ( $n!$ ) and returns the result. As a recall:

$$\forall n \in \mathbb{N}, n! = \begin{cases} 1 & \text{if } n = 0 \\ n \times (n - 1)! & \text{if } n \neq 0 \end{cases}$$

You **must** use recursion (i.e.: loops are forbidden).

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