Exercise 4
Functions and subroutines
(21.11.2025)

Review

1. What is *not* a valid way of dimensioning an array?

   ☐ `DIMENSION(3) VELO`

   ☐ `DIMENSION POSITION (3), VELO(2)`

   ☐ `REAL, DIMENSION(3) ::  ACCEL`

2. What do function and subroutines have in commmon?

   ☐ They have a return value.

   ☐ In F95 they must be always declared as `EXTERNAL`.

   ☐ Their arguments are passed per addresse.

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1. Task *Recursive function* (4 P)

Write a short Fortran program that ask for an integer number n and then calculates the factorial $n!$ with help of a recursive function, using this scheme:

```
this_function (n) ...
    when n = 1, return 1
    otherwise return n * this_function(n-1)
```