

[previous](#) [up](#) [next](#)

Tartalomjegyzék

- 1 Running python
 - ◆ 1.1 Jupyterhub
 - ◆ 1.2 leibniz
 - ◆ 1.3 Own machine
- 2 Exercises
 - ◆ 2.1 Introduction
 - ◆ 2.2 toelsius
 - ◆ 2.3 isaprime
 - ◆ 2.4 roomtemp
 - ◆ 2.5 factorial
 - ◆ 2.6 without 2

Running python

Jupyterhub

- Log into jupyter.math.bme.hu with your **leibniz user and password**
- We will use **Python 3**
- this is similar as you would run the following on your own machine

```
jupyter notebook
```

leibniz

- type this into your konsole:

```
python3
```

- you can stop by typing:

```
exit()
```

Own machine

Install [Anaconda](#), version **3.7** is needed!

- [how to install Anaconda on windows](#)
- You can use other distributions such as
 - ◆ python.org

◆ WinPython

Having Anaconda you can run several programs to interact with python:

- command line: `python` or `ipython`
- Spyder
- idle
- jupyter notebook

Exercises

Introduction

- Try the notebook from the lecture.
 - ◆ download from wiki and upload it into `jupyter.math.bme.hu`
- Try a welcoming program (from terminal)!
- Try division (integer and float)

tocelsius

Write a python function that convets from Fahrenheit to Celsius

The function should

- be called `tocelsius`
- have one parameter (called `fahrenheit`)
- return the appropriate Celsius degrees as float.
- To get the Celsius, subtract 32 from the Fahrenheit value then multiply with $5 / 9$.
- See [examples here](#)

isaprime

Write a function that tells whether a number is a prime or not!

The function should be called `isaprime` and have one parameter:

- `x`, the number in question

The function should return **True** or **False** depending on the number.

For safety reasons, you can check the type and value of the input. Accept **only positive integers**! If you get a non-integer or a non-positive integer, return **None**

roomtemp

According to [Wikipedia](#) a room has a temperature between 18°C and 25°C. Write a function that decides that for us.

The function should

- be called `roomtemp`
- have one parameter: `degree` the temperature of the room in Celsius degrees.
- return either one of the following strings depending on the temperature:
 - ◆ `"http://wiki.math.bme.huToo cold!"http://wiki.math.bme.hu`
 - ◆ `"http://wiki.math.bme.huToo hot!"http://wiki.math.bme.hu`
 - ◆ `"http://wiki.math.bme.huOK"http://wiki.math.bme.hu`

Mind that there is a difference between **print** and **return**

factorial

Write a function which calculates n factorial

without 2

You should divide a positive integer n with a power of two, until it is not divisible by 2.

Call the function `withouttwo` with one parameter:

- **n**, a positive integer
- Return the number divided by the greatest possible power of two.

For example

```
1 -> 1
2 -> 1
3 -> 3
4 -> 1
6 -> 3
7 -> 7
9 -> 9
10 -> 5
100 -> 25
```

[previous](#) [up](#) [next](#)