0.1 Plain text

Here is some plain text.

Now we add a citation: a Langtangen book [1]. And a paper [2].

0.2 Explanation

Let's explain some of this code (setting the code to be unexecutable):

The `for` loop:

```
for number in range(10):
    total = total + (number + 1)
```

Goes through numbers 0 to 9 and adds 1 more than each number to the `total` variable.

0.3 Table

The data on exponential growth can be found in the table below.

time	count
60	10000
90	25587
120	76327
150	212715
180	619511
210	1940838
240	4240760
270	13993730
300	38971086
330	105614040

0.4 Figure

See figure 1 for an illustration that explains the python dictionary concept.

0.5 Math

Now we add some mathematical formula:

$$K_n = rwTK_{n-1}\left(1 - \frac{K_{n-1}}{H}\right) - K_{n-1}.$$

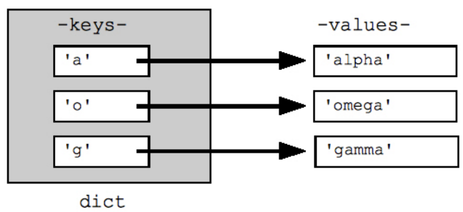

Figure 1: Data structure concept of a dictionary in python. From [3].

0.6 Plotting with Python

This is a cell that generates a plot, leading to Figure 2:

```
from pylab import *
x = linspace(0, 10, 100)
plot(x, x*x)
show()
```

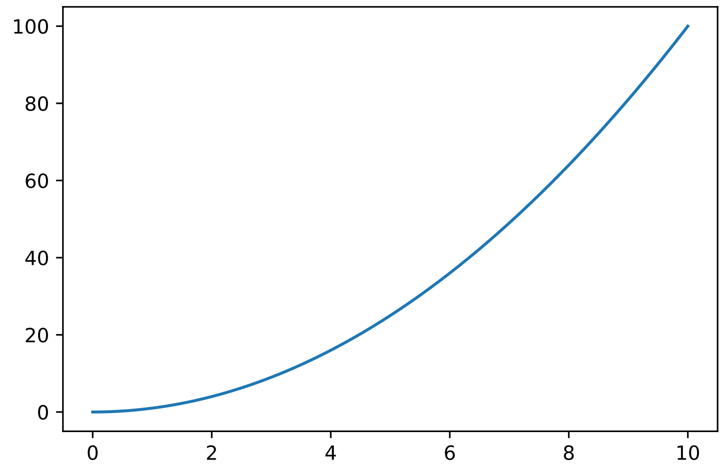

Figure 2: $y = x^2$

References

[1] X. Cai and H. P. Langtangen. Parallelizing PDE solvers using the Python programming language. In A. M. Bruaset and A. Tveito, editors, *Numerical Solution of Partial Differential Equations on Parallel Computers*, volume 51 of *Lecture Notes in Computational Science and Engineering*, pages 295–325. Springer, 2006.

[2] A. J. Chorin. Numerical solution of the Navier-Stokes equations. *Math. Comp.*, 22:745–762, 1968.

[3] Data structure concept of a dictionary in Python. `https://commons.wikimedia.org/wiki/File:GooglePythonClass_Day1_Part3_Pic.jpg`.