

## Python: Introduction for Absolute Beginners – Day Two

### Additional exercises

Don't worry if you can't do these exercises yet – we've covered a lot of ground and it will take you some time to absorb it. These exercises are principally here to help you improve your familiarity with Python interpreter and to get you used to writing simple functions.

1. You have the following collection of value pairs you want to store in a variable of some sort. They are the names and boiling points of some elements. Store them in a variable. Then work out how, given a temperature, you would display only those elements whose boiling point is within 10 degrees of that temperature.

Element	Boiling Point (°C)
helium	-268.6
oxygen	-183
argon	-186
fluorine	-188.14
bromine	58.78
mercury	356.58
aluminium	2467

2. For  $x$  in the range 1 to 25, print out  $x, x^2, \frac{5}{x}$ . You should display the values in descending order of  $x$ , i.e. from 25 to 1, and for each value of  $x$ , the three values you have to display should be on a single line separated by tabs.
3. Turn your answers for exercises 1 and 2 into functions.
4. Write a function to determine whether two floating-point numbers are within the machine epsilon of each other.