**Exercise: Problem solving**

In these exercises, you will train your problem solving skillz.

Use the provided file “childnames.txt” for the following exercises.

The file contains the name and age of Danish kindergarten children.

The information is structured as [name, age] tuples for each child, e.g. :

Olivia, 5

Alexander, 3

Josefine, 4

**Exercise 1:**

How many children are there?

**Exercise 2:**

How many children are named “Sofie”?

**Exercise 3:**

What is the average age of “Oscar”?

**Exercise 4:**

How many 6 years olds are there?

**Exercise 5:**

The boys names are: "Noah", "Victor", "Oliver", "Oscar", "William", "Lucas", "Carl", "Malthe", "Emil", "Alfred", "Frederik", "Valdemar", "Magnus", "Elias", "Christian", "Alexander", "August", "Anton", "Villads", "Aksel", "Nohr", "Johan", "Liam", "Sebastian" and "Mikkel"

How many boys are there?

**Exercise 6:**

What are the girls names? (the list of unique names)

**Exercise 7:**

Are there more boys than girls or is it the other way around?

**Exercise 8:**

What is the most popular name for a boy and for a girl?

**Advanced exercise A1:**

Write a program to generate the “childnames.txt” file.

**Advanced exercise A2:**

Write a program, which takes two command line arguments: **name1** and **name2**. The program shall replace all occurrences of **name1** in the **childnames.txt** file with **name2**.