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**Exercise: Problem solving**

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

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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**.