Import der Tabelle "Spanische Autoren"

In [1]:
```
import pandas as pd
import math

sp_authors = pd.read_csv("sp_authors.tsv", sep="\t")
sp_authors.head()
```

Out[1]:

	id	author-fullname	author	birth	death	gender	pages-in-manual	novels	works	life-span	digitzed-by
0	1	Rosalía de Castro	RdCastro	1837	1885	female	17	1	1	48	6
1	2	Enrique Pérez Escrich	Escrich	1829	1897	male	1	4	17	68	5
2	3	Antonio de Trueba y de la Quintana	Trueba	1819	1889	male	1	0	1	70	6
3	4	José Selgas Carrasco	Selgas	1822	1882	male	1	5	7	60	4
4	5	Francisco Navarro Villoslada	Villoslada	1818	1895	male	1	0	0	77	5

Ausgabe

In [2]:
```
#sp_authors["life-span"]
sp_authors["life-span"][0:10]
```

Out[2]:
```
0    48
1    68
2    70
3    60
4    77
5    68
6    58
7    58
8    73
9    81
Name: life-span, dtype: int64
```

..als Liste

In [3]:
```
print(sp_authors["life-span"].values.tolist(), end=" ")
```

```
[48, 68, 70, 60, 77, 68, 58, 58, 73, 81, 77, 70, 49, 85, 64, 71, 66,
61, 47, 98, 52, 66, 78, 56, 80, 48, 63, 62, 47, 82, 46, 65, 62, 80, 5
2, 51, 85, 67, 72, 84, 94, 51, 82, 75, 83, 71, 90, 80, 55, 59, 51, 59
, 55, 66, 56, 73, 66, 55, 54, 59, 73, 63, 88, 61, 78, 78, 42, 48, 41,
75, 83, 88, 85, 81, 86, 62, 79, 52, 42, 66, 34, 85, 51, 72, 84, 92, 7
3, 60, 88, 81, 36, 54, 71, 70, 72, 65, 75, 74, 60, 74, 59, 39, 92, 68
, 77, 36, 61, 83, 32, 65, 84, 64, 65, 60, 61, 90, 68, 53, 96, 81, 103
, 60, 65, 84, 71, 86, 68, 86, 72, 70, 80, 49, 53]
```

Import eigener Tabelle

Eine Liste deutscher Kinderbuchautoren, die im 20. Jhdt geboren wurden.

In [4]:
```
gerChB_authors = pd.read_csv("KinderautorenD20Jhdt.tsv", sep="\t")
gerChB_authors.head()
```

Out[4]:

	Nachname	Vorname	Geburtsjahr	Todesjahr
0	Abraham	Peter	1936	2015
1	Aichner	Fridolin	1912	1987
2	Alexander-Burgh	Eberhard	1929	2004
3	Allfrey	Katherine	1910	2001
4	Axt	Maria	1926	1986

In [5]:
```
gerChB_authors["Lebensspanne"] = gerChB_authors["Todesjahr"] - gerChB_a
uthors["Geburtsjahr"]
gerChB_authors.head()
```

Out[5]:

	Nachname	Vorname	Geburtsjahr	Todesjahr	Lebensspanne
0	Abraham	Peter	1936	2015	79
1	Aichner	Fridolin	1912	1987	75
2	Alexander-Burgh	Eberhard	1929	2004	75
3	Allfrey	Katherine	1910	2001	91
4	Axt	Maria	1926	1986	60

Arithmetischer Mittelwert

der Lebensspanne der Autoren aus der Liste gerChB_authors

$$\overline{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

In [6]:
```
mean = gerChB_authors["Lebensspanne"].sum() / len(gerChB_authors)
print(mean)
```

```
75.45098039215686
```

Varianz/Standardabweichung

der Lebensspanne der Autoren aus der Liste gerChB_authors

$$s = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(x_i - \overline{x})^2}$$

In [7]:
```
var = math.sqrt(
    sum(
        (gerChB_authors["Lebensspanne"] - mean)**2) /
        (len(gerChB_authors) - 1
    )
)
print(var)
```

```
12.098452339849418
```

In [8]:
```
AYL_theatre_data = pd.read_excel("AYLSpeakerData.xlsx")
AYL_theatre_data
```

Out[8]:

	ID	label	gender	per_ms_sps	role	importance
0	0	orlando	male	120	protagonist	primary
1	1	oliver	male	40	antagonist	primary
2	2	second brother	male	2	other	minor
3	3	adam	male	10	other	minor
4	4	dennis	male	2	other	minor
5	5	rosalind	female	201	lover	primary
6	6	celia	female	108	other	secondary
7	7	touchstone	male	74	other	secondary
8	8	duke frederick	male	20	antagonist	secondary
9	9	charles	male	8	other	minor
10	10	le beau	male	14	other	minor
11	11	first lord	male	1	other	minor
12	12	second lord	male	1	other	minor
13	13	duke senior	male	32	other	secondary
14	14	jaques	male	57	other	secondary
15	15	amiens	male	11	other	minor
16	16	first lord sen	male	6	other	minor
17	17	second lord sen	male	3	other	minor
18	18	first page	male	4	other	minor
19	19	second page	male	3	other	minor
20	20	corin	male	24	other	minor
21	21	silvius	male	24	other	minor
22	22	phoebe	female	23	other	minor
23	23	audrey	female	12	other	minor
24	24	william	male	11	other	minor
25	25	sir oliver martext	male	3	other	minor
26	26	hymen	male	2	other	minor

In [9]:
```
AYL_theatre_data["per_ms_sps"].mean()
```

Out[9]: 30.22222222222222