Aufgabe 3.1A

In [6]:
```
liste = [3, 5, 12, 17, 23] #beispiel

#mittelwert berechnen
mw = sum(liste)/len(liste)
print(mw)

#zähler unter wurzel für varianzberechnung
zaehler=0
for i in liste:
   zaehler += (i-mw)**2
print(zaehler)

#varianz berechnen
varianz = (zaehler/len(liste))**0.5
print(varianz)

#standard-abweichung
sa = varianz**0.5

print(sa)
```

```
12.0
276.0
7.429670248402684
2.725742146352564
```

Aufgabe 3.1B

In [2]:
```
import pandas as pd

pd.read_csv("0103_personen_drama_hamlet.csv", sep=";")
```

Out[2]:

pd.read_csv("0103_personen_drama_hamlet.csv", sep=";")

	id	label	gender	role	importance	per_mes_sps
0	1	Ghost	male	other	primary	0
1	2	Hamlet	male	protagonist	primary	358
2	3	Gertrude	female	other	secondary	69
3	4	Claudius	male	antagonist	primary	102
4	5	Ophelia	female	lover	primary	58
5	6	Laertes	male	antagonist	primary	62
6	7	Polonius	male	other	secondary	86
7	8	Reynaldo	male	other	minor	13
8	9	Horatio	male	other	secondary	109
9	10	Voltemand	male	other	minor	1
10	11	Cornelius	male	other	minor	1

	id	label	gender	role	importance	per_mes_sps
11	12	Rosencrantz	male	other	minor	48
12	13	Guildenstern	male	other	minor	29
13	14	Osric	male	other	minor	25
14	15	Gentlemen	male	other	minor	1
15	16	A Lord	male	other	minor	3
16	17	Francisco	male	other	minor	8
17	18	Bernardo	male	other	minor	19
18	19	Marcellus	male	other	minor	37
19	20	Fortinbras	male	other	minor	6
20	21	Captain in Fortinbras Army	male	other	minor	7
21	22	Ambassodors to Denmark from England	male	other	minor	1
22	23	Players who take Proglogue	male	other	minor	1
23	24	Two Messengers	male	other	minor	1
24	25	Sailors	male	other	minor	2
25	26	Gravedigger = First Clown	male	other	minor	34
26	27	Gravedigger's companion = 2nd Clown	male	other	minor	12
27	28	Doctor of Divinity = Priest	male	other	minor	2

In [ ]: