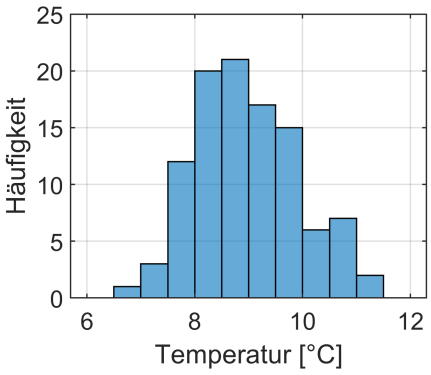
```
% Übung 1

clear all
close all

Wetter = readtable('UE01_Daten.xlsx','Sheet','Wetter');

% (b)

D = Wetter.Variables;  % alle Spalten
D = D(:,2:end);        % Spalten ohne Jahre

% Werte berechnen
Mittelwert = mean(D)'; % transponieren, da wir für table Spalten brauchen
Median = median(D)';
Varianz = var(D)';
Standardabweichung = std(D)';

% die Zeilennamen als Spalte
Namen = {'Temperatur';'Niederschlag';'Sonnenschein'};

% Ausgabe der Tabelle
table(Namen,Mittelwert,Median,Varianz,Standardabweichung)
```

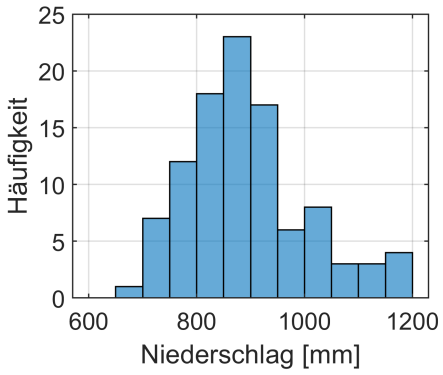
ans = 3×5 table

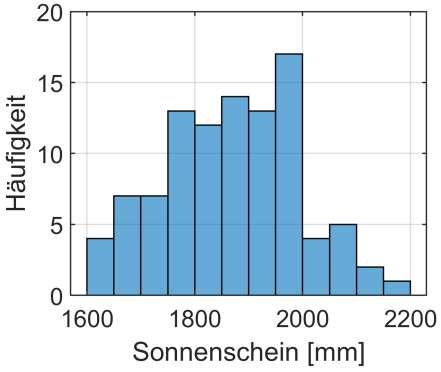
	Namen	Mittelwert	Median	Varianz	Standardabweichung
1	'Temperatur'	8.9055	8.8500	0.8971	0.9472
2	'Niederschlag'	901.0856	891.2000	1.4192e+04	119.1283
3	'Sonnenschein'	1.8729e+03	1.8745e+03	2.1263e+04	145.8194

```
% (c) Säulendiagramm

T = D(:,1);  % Temperatur
N = D(:,2);  % Niederschlag
S = D(:,3);  % Sonnenschein

% Temperatur
nexttile
K = 6:0.5:12;
histogram(T,K)
xlabel('Temperatur [°C]')
ylabel('Häufigkeit')
grid on

% Niederschlag
nexttile
K = 600:50:1200;
histogram(N,K)
xlabel('Niederschlag [mm]')
ylabel('Häufigkeit')
```

```
grid on

% Sonnenschein
nexttile
K = 1600:50:2200;
histogram(S,K)
xlabel('Sonnenschein [mm]')
ylabel('Häufigkeit')
grid on
```

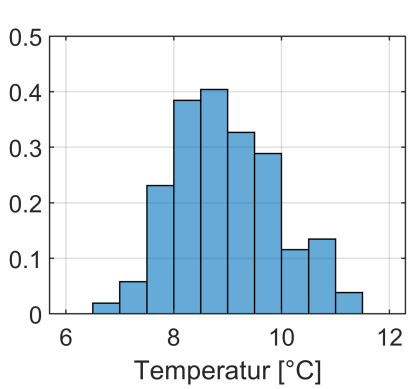


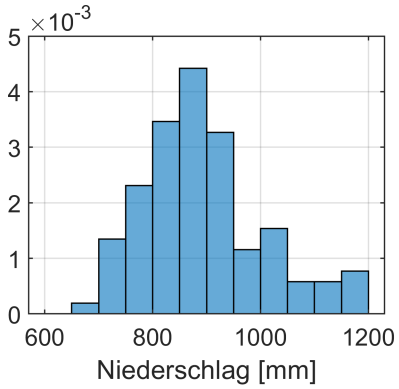


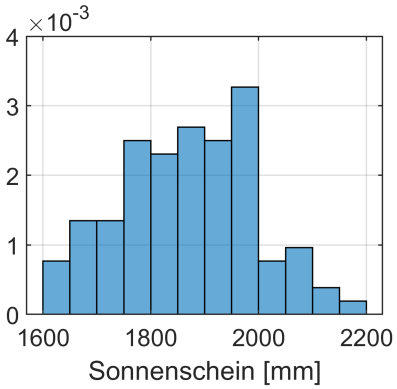



```
% (d) Histogramm

figure

% Temperatur
nexttile
K = 6:0.5:12;
histogram(T,K,'Normalization','pdf')
xlabel('Temperatur [°C]')
grid on

% Niederschlag
nexttile
K = 600:50:1200;
histogram(N,K,'Normalization','pdf')
xlabel('Niederschlag [mm]')
grid on
```

```
% Sonnenschein
nexttile
K = 1600:50:2200;
histogram(S,K,'Normalization','pdf')
xlabel('Sonnenschein [mm]')
grid on
```

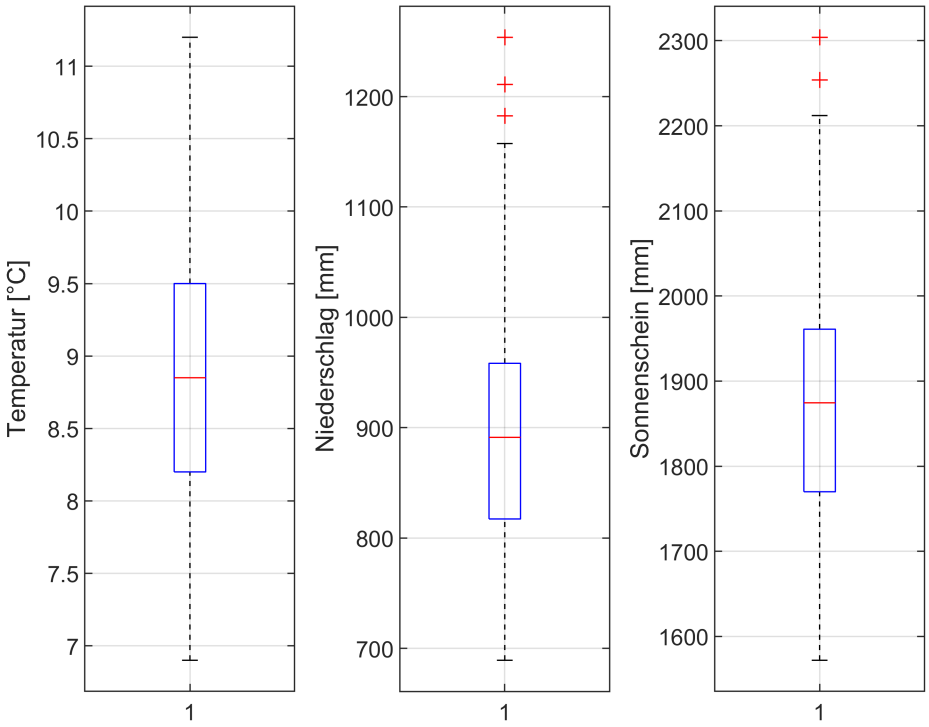







```
% (d)  Boxplot

figure

% Temperatur
subplot(1,3,1)
boxplot(T)
ylabel('Temperatur [°C]')
grid on

% Niederschlag
subplot(1,3,2)
boxplot(N)
ylabel('Niederschlag [mm]')
grid on

% Sonnenschein
subplot(1,3,3)
boxplot(S)
ylabel('Sonnenschein [mm]')
```

```
grid on
```


Temperatur [°C]
11
10.5
10
9.5
9
8.5
8
7.5
7
1
Niederschlag [mm]
1200
1100
1000
900
800
700
1
Sonnenschein [mm]
2300
2200
2100
2000
1900
1800
1700
1600
1