

```
%Felix Rohrer
clear
format compact
%Testataufgaben Kapitel 4
```

```
%Aufgabe 4.1
x=2:2:8;
y=x-3
y=1/2*x+1./x
y=2*x+x.^2
y=2.^x
```

```
y =
    -1     1     3     5
y =
  1.5000  2.2500  3.1667  4.1250
y =
     8    24    48    80
y =
     4    16    64   256
```

```
%Aufgabe 4.2
x=0.8:0.1:1.7;
a1=x.^0;
a2=x.^2;
a3=1./(x.^2);
```

```
%Aufgabe 4.3
u=25:-3:1;
v=1./u;
w=u-2;
```

```
%Aufgabe 4.4
v=0:0.2:pi/2;
```

```
%Aufgabe 4.5
x=0:10:90;
y=sind(x);
```

```
%Aufgabe 4.6
x=linspace(-1,3,20);
y=exp(-x.^2);
```

```
%Aufgabe 4.7
```

```
x=1:1:100;
```

```
y=x.^2;
```

```
s=sum(y)
```

```
m=mean(y)
```

```
s =
```

```
338350
```

```
m =
```

```
3.3835e+003
```

```
%Aufgabe 4.8
```

```
a=0:0.1:1;
```

```
a.^3;
```

```
sin(sqrt(1./a));
```

```
exp(a.^2);
```