

Zwei Methoden zur Berechnung von $\sqrt{2}$

Methode 1

```
iter=0 x=1.0000000000000000e+00 err=4.142e-01
iter=1 x=1.5000000000000000e+00 err=8.579e-02
iter=2 x=1.4166666666666667e+00 err=2.453e-03
iter=3 x=1.414215686274510e+00 err=2.124e-06
iter=4 x=1.414213562374690e+00 err=1.595e-12
iter=5 x=1.414213562373095e+00 err=9.671e-17
time=0.42
```

Methode 2

```
iter=0 x=1.0000000000000000e+00 err=4.142e-01
iter=1 x=1.4000000000000000e+00 err=1.421e-02
iter=2 x=1.414213197969543e+00 err=3.644e-07
iter=3 x=1.414213562373095e+00 err=9.671e-17
iter=4 x=1.414213562373095e+00 err=9.671e-17
iter=5 x=1.414213562373095e+00 err=9.671e-17
time=0.35
```