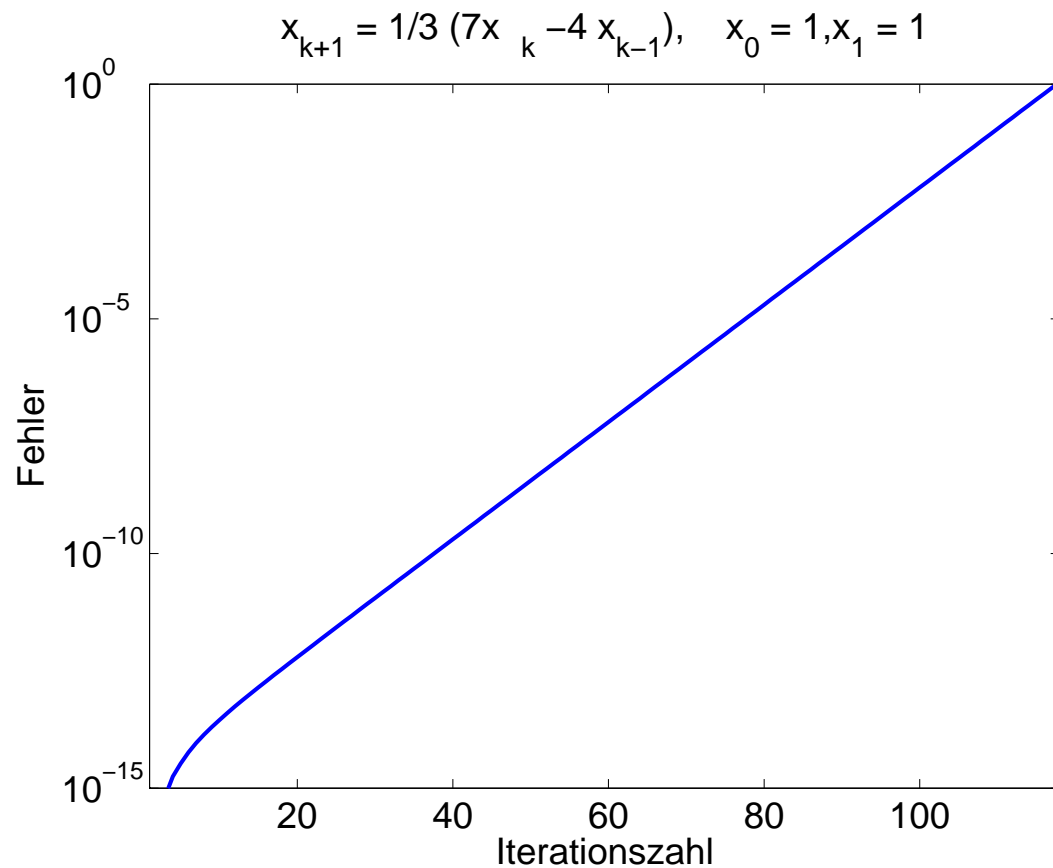


## Auswertung einer Rekursion

$$x_{k+1} = \frac{1}{3} (7x_k - 4x_{k-1}), \quad k = 1, 2, \dots,$$

Startwerte:  $x_0 = 1, x_1 = 1$

exakte Lösung:  $x_k = 1$  für alle  $k$



$x_0 =$	1.0000000000000000
$x_{10} =$	1.0000000000000028
$x_{20} =$	1.00000000000000620
$x_{30} =$	1.00000000000011237
$x_{40} =$	1.0000000000199907
$x_{50} =$	1.0000000003550380
$x_{60} =$	1.0000000063047287
$x_{70} =$	1.000001119577209
$x_{80} =$	1.000019881146851
$x_{90} =$	1.000353043971939
$x_{100} =$	1.006269258344517