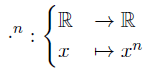
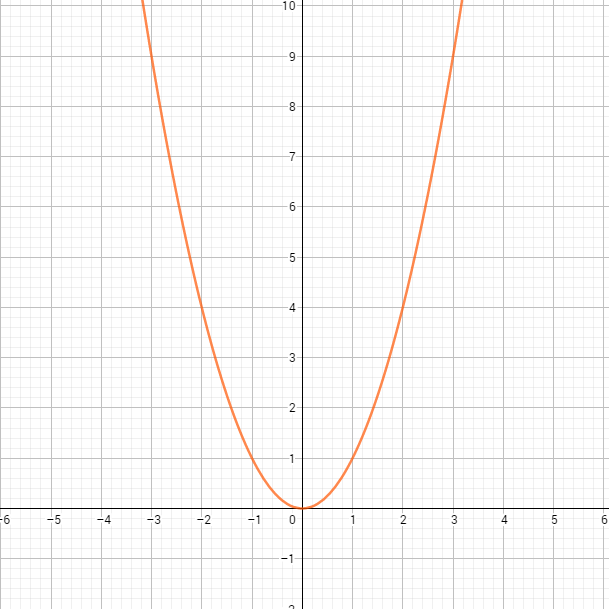
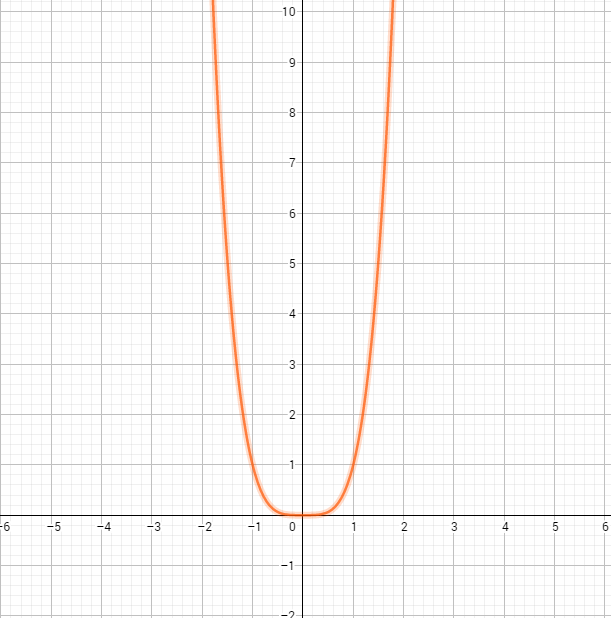
Graphen der elementaren Funktionen

# Die Potenzfunktion(gerade ganzzahlige positive Exponenten n ≥ 0)

**Definitionsbereich**: x ∈ R  
**Symmetrie an y-Achse**  
**P1(-1|1), S(0|0), P2(1|1) Fixpunkte**



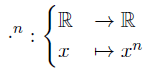
 

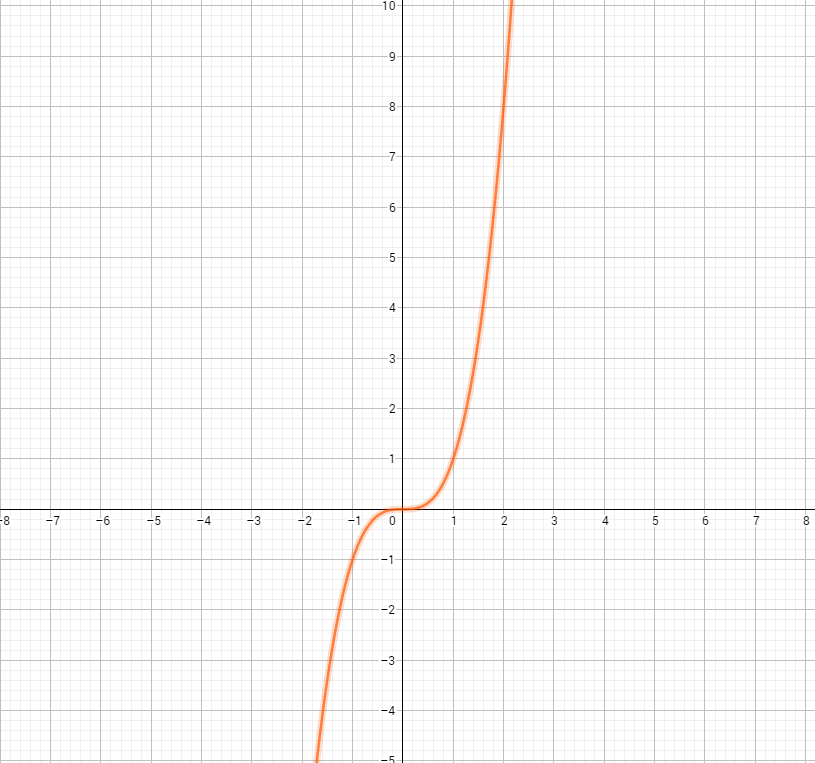
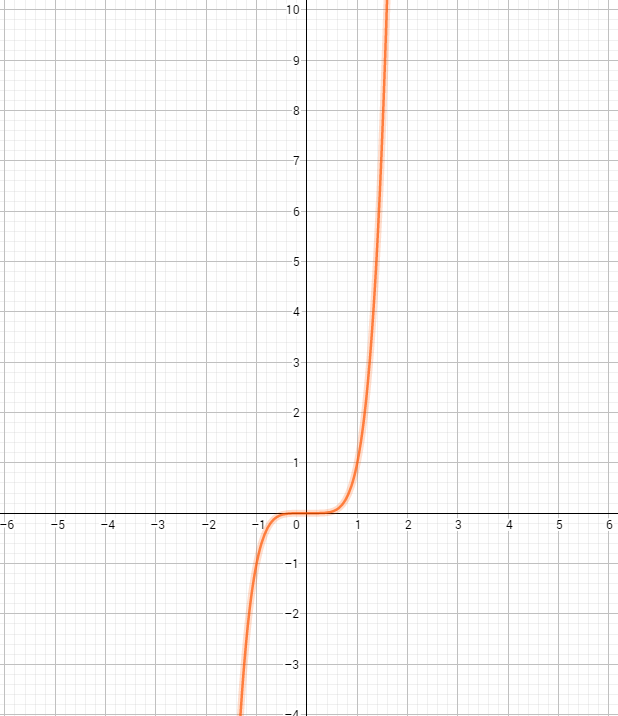
f(x) = x4

f(x) = x2

# Die Potenzfunktion(ungerade ganzzahlige positive Exponenten n ≥ 0)

**Definitionsbereich**: x ∈ R  
**Punktsymmetrie zum Ursprung**  
**P1(-1|-1), S(0|0), P2(1|1) Fixpunkte**

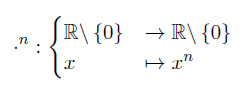


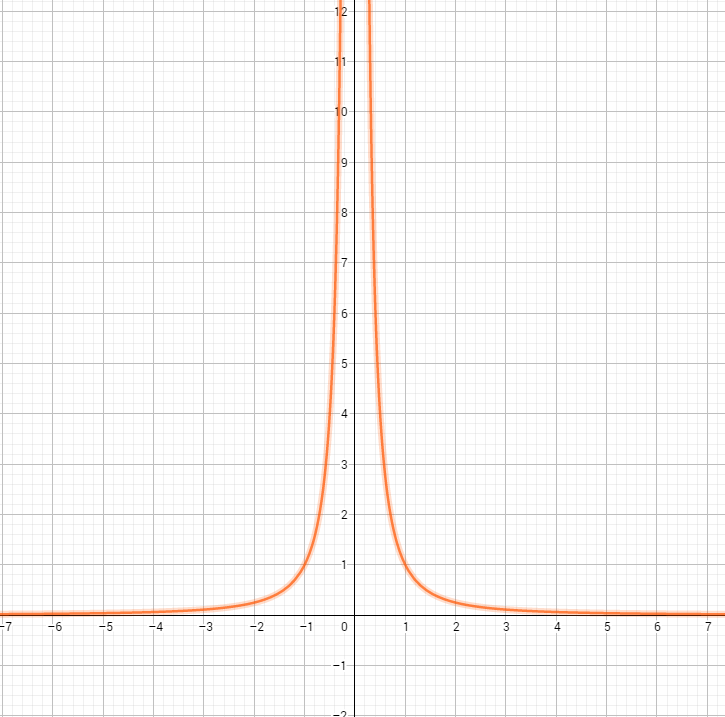
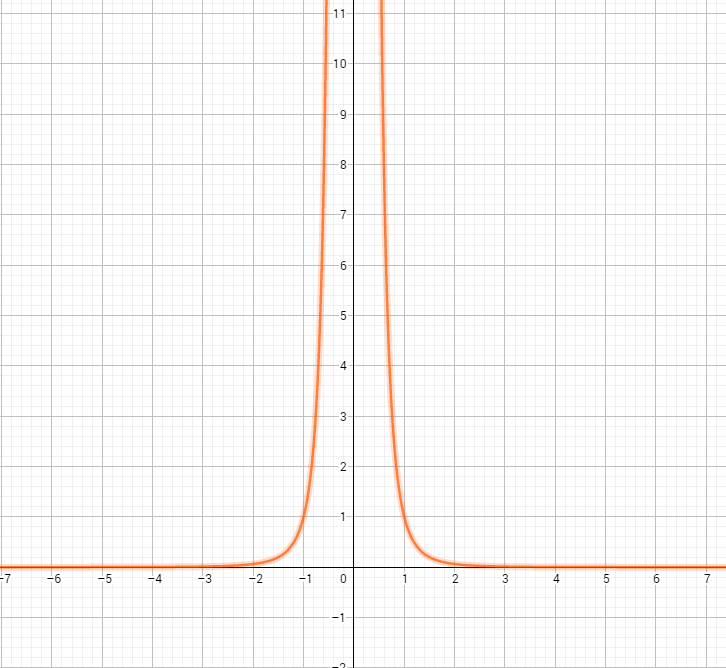
f(x) = x5

f(x) = x3

# Die Potenzfunktion(gerade ganzzahlige negative Exponenten n < 0)



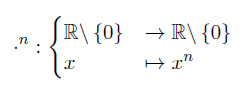
**Definitionsbereich**: x ∈ R\{0}  
**Symmetrie an y-Achse**  
**P1(-1|1), P2(1|1) Fixpunkte**

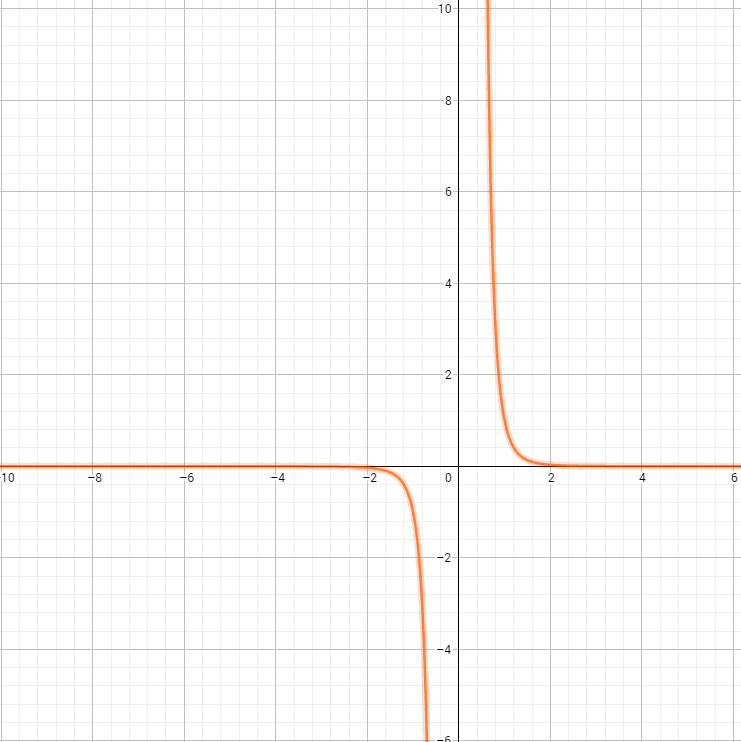
f(x) = x-4

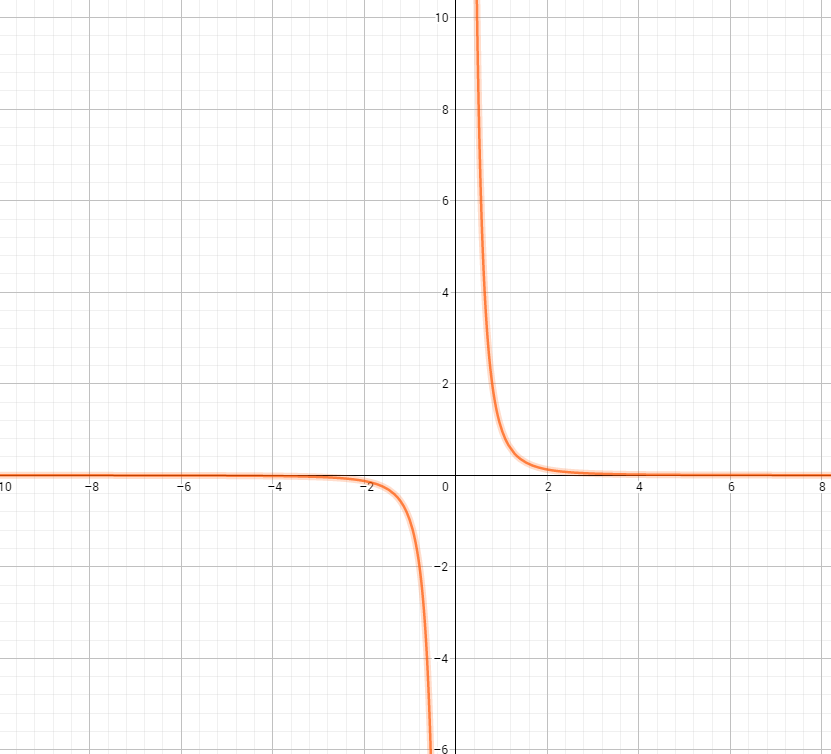
f(x) = x-2

# Die Potenzfunktion(ungerade ganzzahlige negative Exponenten n < 0)



**Definitionsbereich**: x ∈ R\{0}  
Punktsymmetrie zum Ursprung  
**P1(-1|-1), P2(1|1) Fixpunkte**



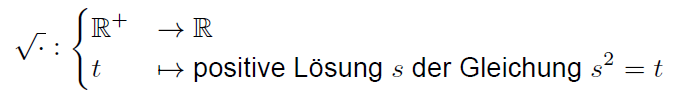


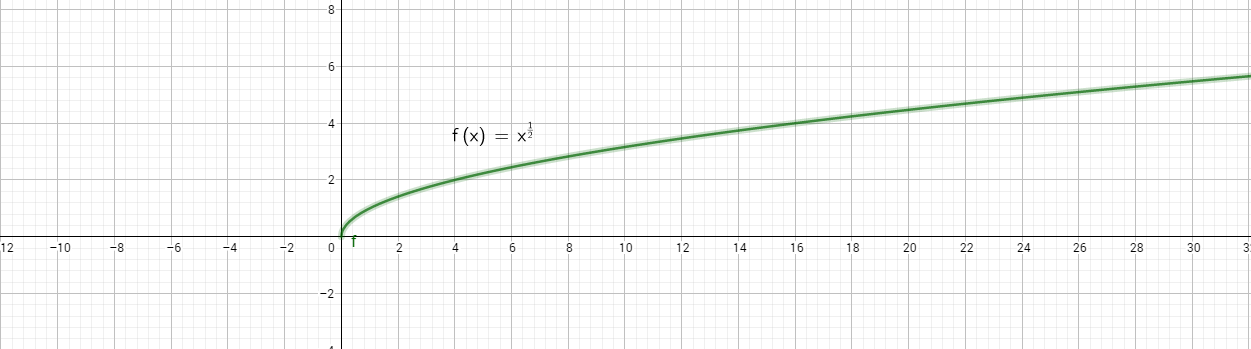
f(x) = x-5

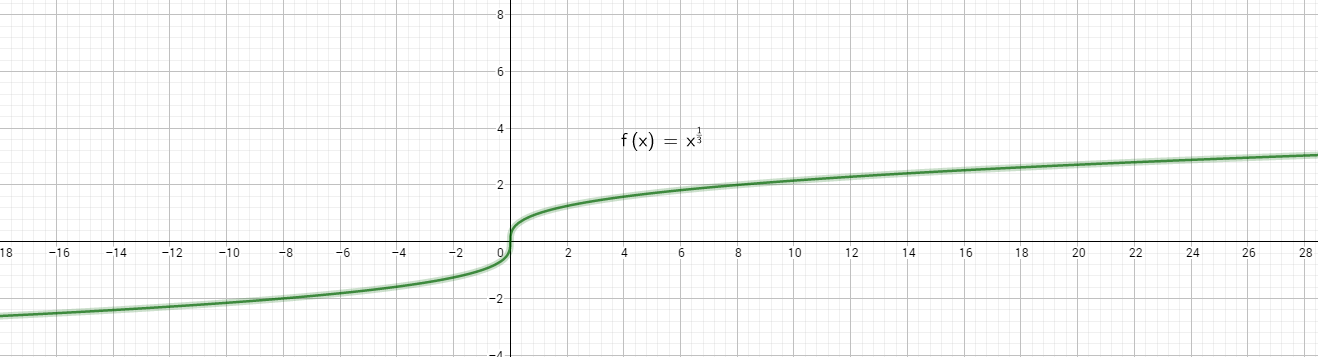
f(x) = x-3

# Die Wurzelfunktion

**Definitionsbereich**: x ∈ R+  
**keine** **negativen** **x-Werte**.  
**keine Symmetrie**  
**P1(0|0) und P2(1|1)** Fixpunkte

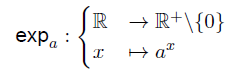


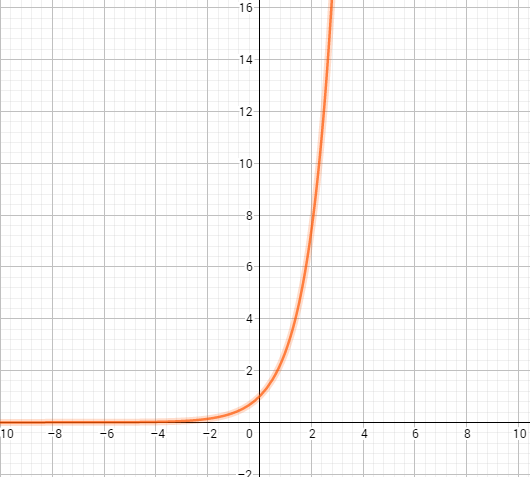




# Die Exponentialfunktion

**Definitionsbereich**: x ∈ R, a > 0  
**keine Symmetrie**  
**P1(0|1)** Fixpunkt



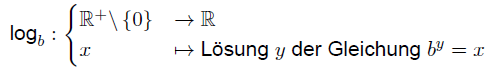


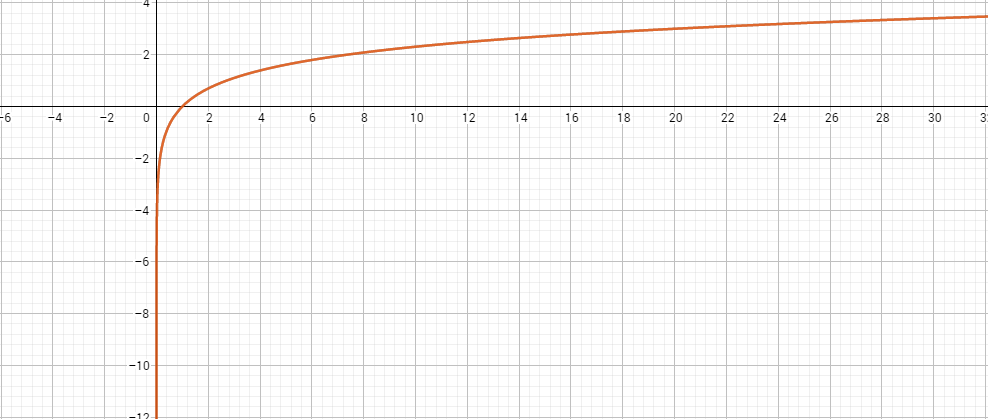
f(x) =e-x

f(x) = ex

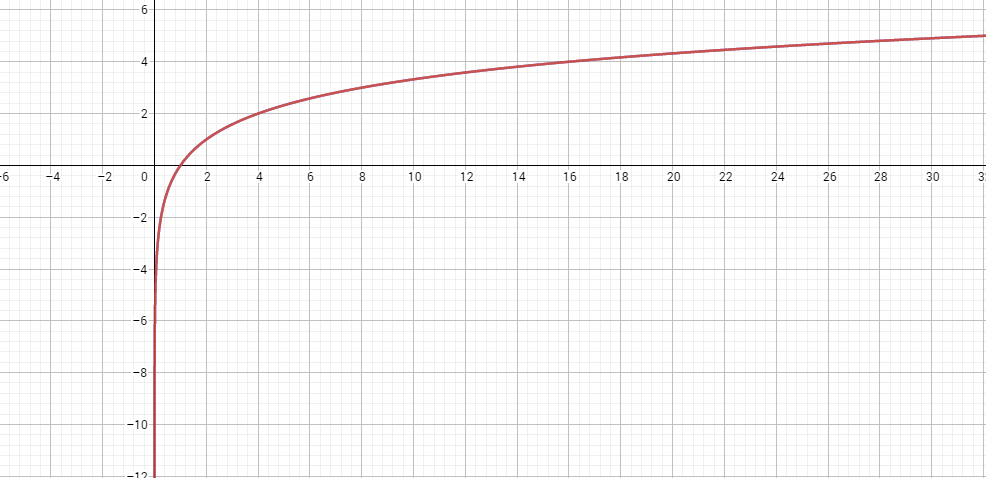
# Die Logarithmusfunktion

**Definitionsbereich**: x ∈ R, a > 0  
**keine Symmetrie**  
**P1(1|0)** Fixpunkt

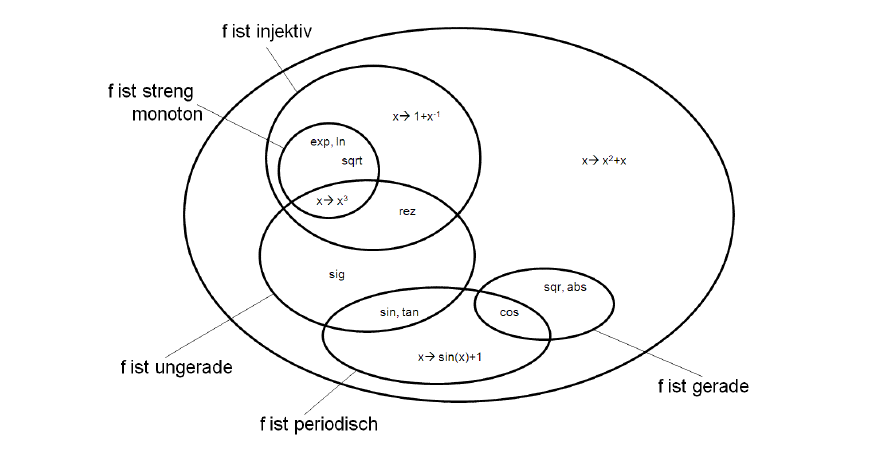




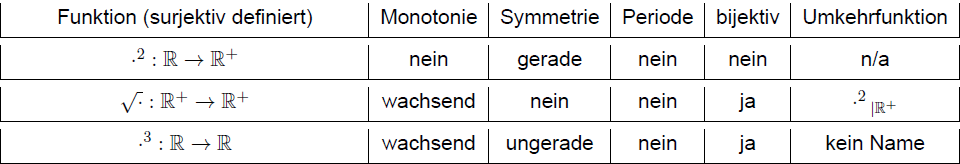
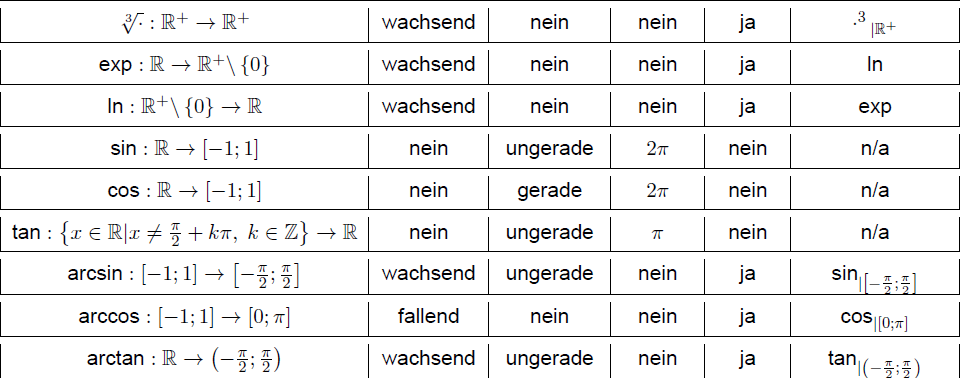
f(x) = ln(x)



f(x) = log2(x)



Eigenschaften der elementaren Funktionen

**