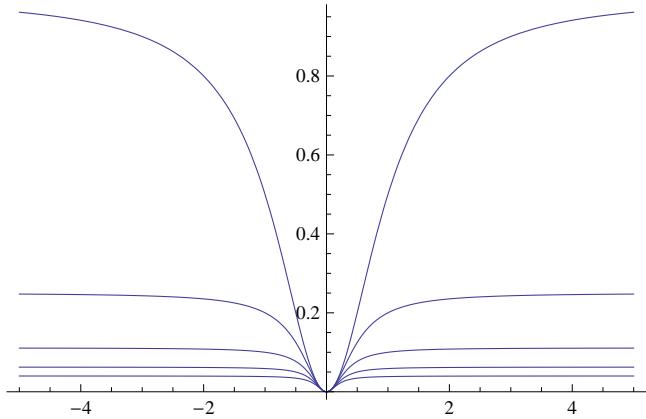

Aufgabe 64

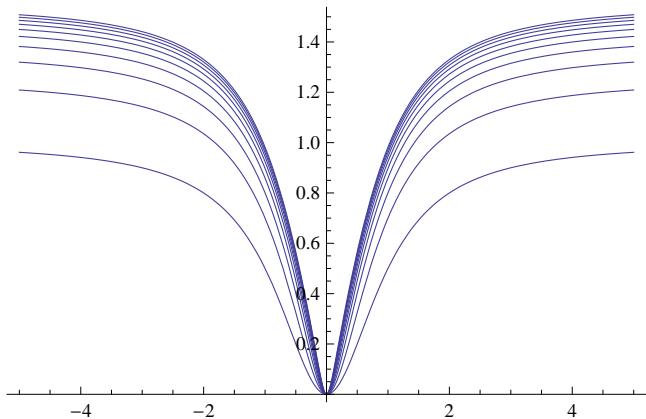
Graphen der Funktionen $f_n = x^2 / (1 + n^2 x^2)$

```
Plot[Table[x^2 / (1 + n^2 x^2), {n, 1, 5}], {x, -5, 5}]
```



Graphen der Partialsummen

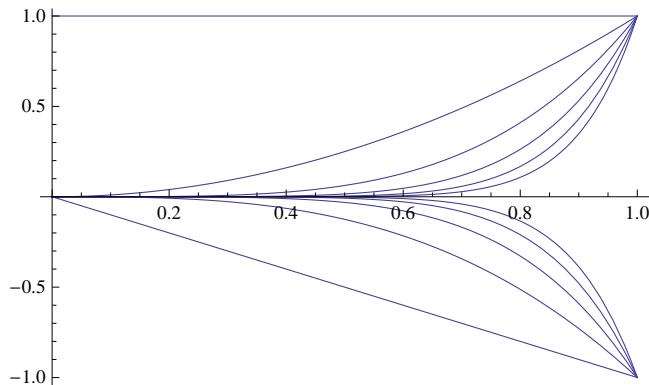
```
Plot[Table[Sum[x^2 / (1 + n^2 x^2), {n, 1, k}], {k, 1, 10}], {x, -5, 5}]
```



Aufgabe 65

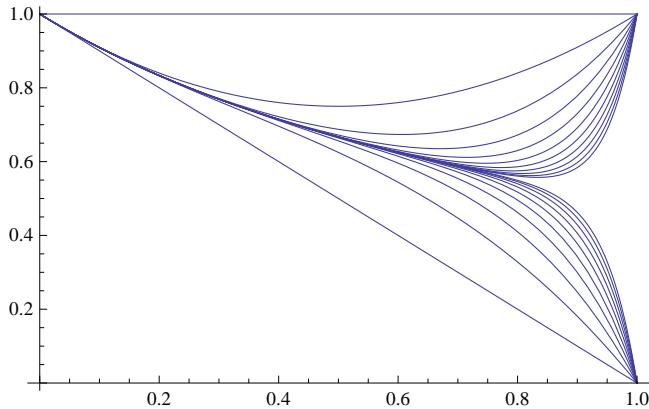
Graphen der Funktionen $f_n = (-x)^n$

```
Plot[Table[(-1)^k * x^k, {k, 0, 10}], {x, 0, 1}]
```



Graphen der Partialsummen

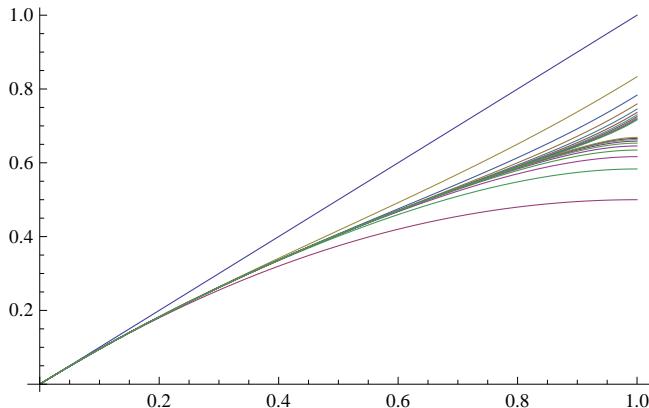
```
Plot[Table[Sum[(-1)^k * x^k, {k, 0, l}], {l, 0, 20}], {x, 0, 1}]
```



Graphen der Partialsummen der integrierten Reihe

```
Table[Sum[Integrate[(-1)^k * x^k, {x, 0, t}], {k, 0, l}], {l, 0, 20}]
```

```
Plot[%, {t, 0, 1}]
```



Zum Vergleich : die Grenzfunktion $\ln(1+x)$

```
Plot[Log[1 + x], {x, 0, 1}]
```

