

```
> f := x → 1/x
```

$$f := x \rightarrow \frac{1}{x}$$

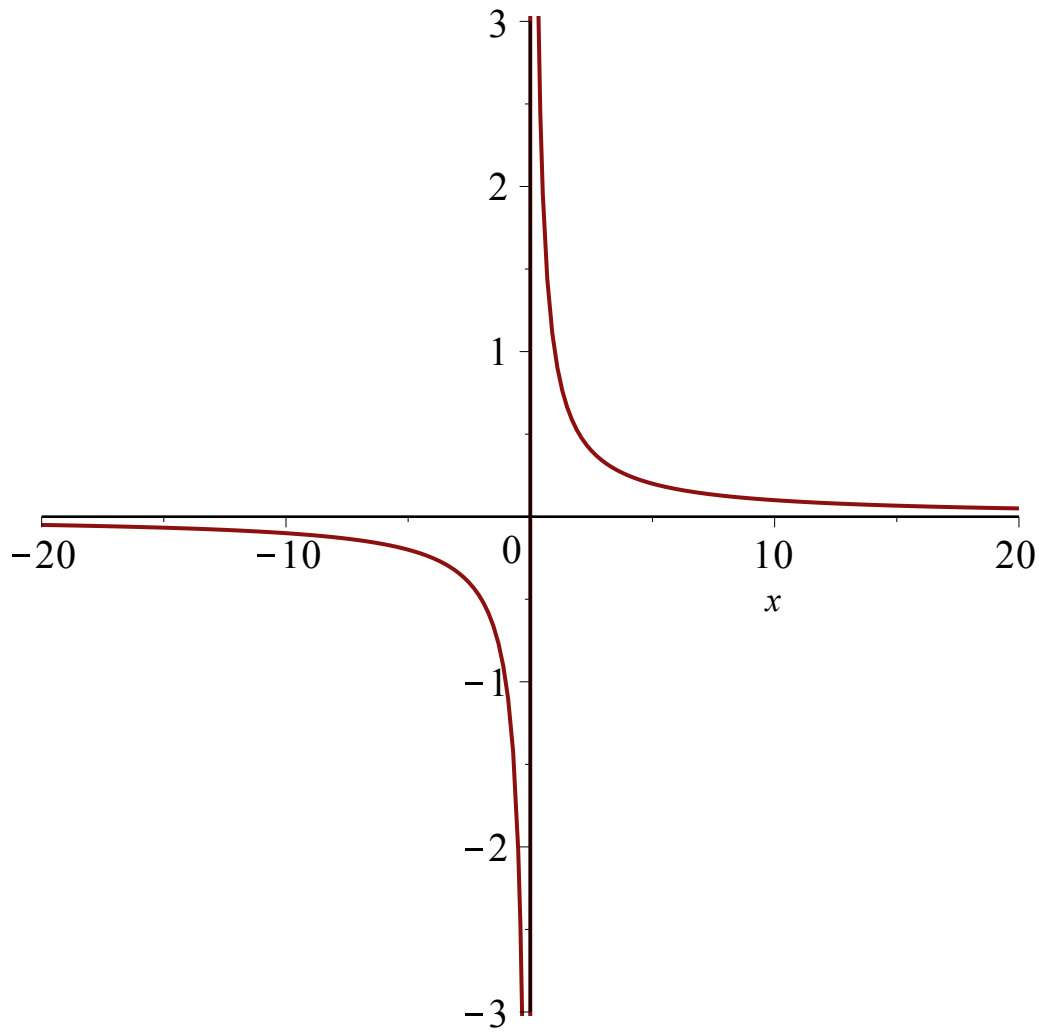
(1)

```
> f(5)
```

$$\frac{1}{5}$$

(2)

```
> plot(f(x), x = -20 .. 20)
```



```
> f(.01)
```

$$100.$$

(3)

```
> f(-.01)
```

$$-100.$$

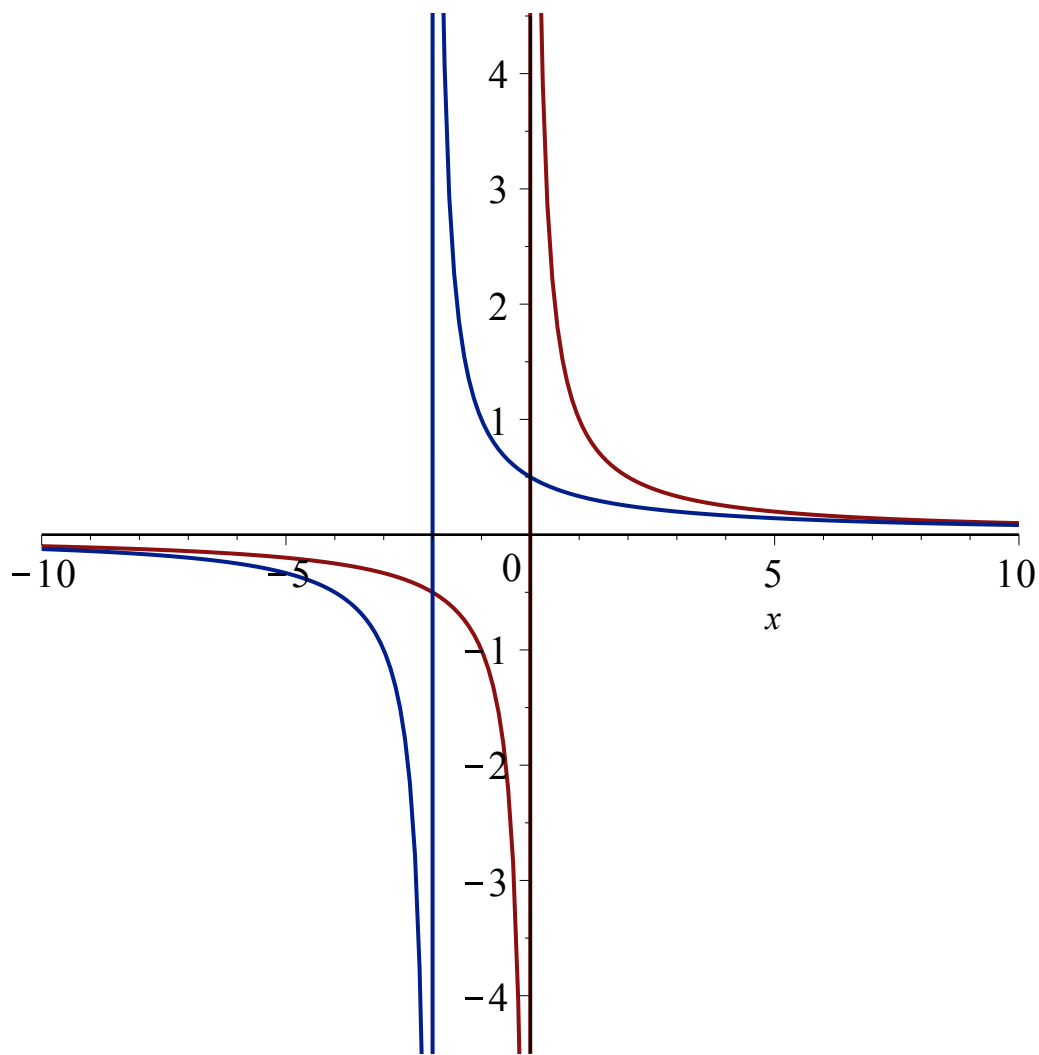
(4)

```
> f2 := f(x + 2)
```

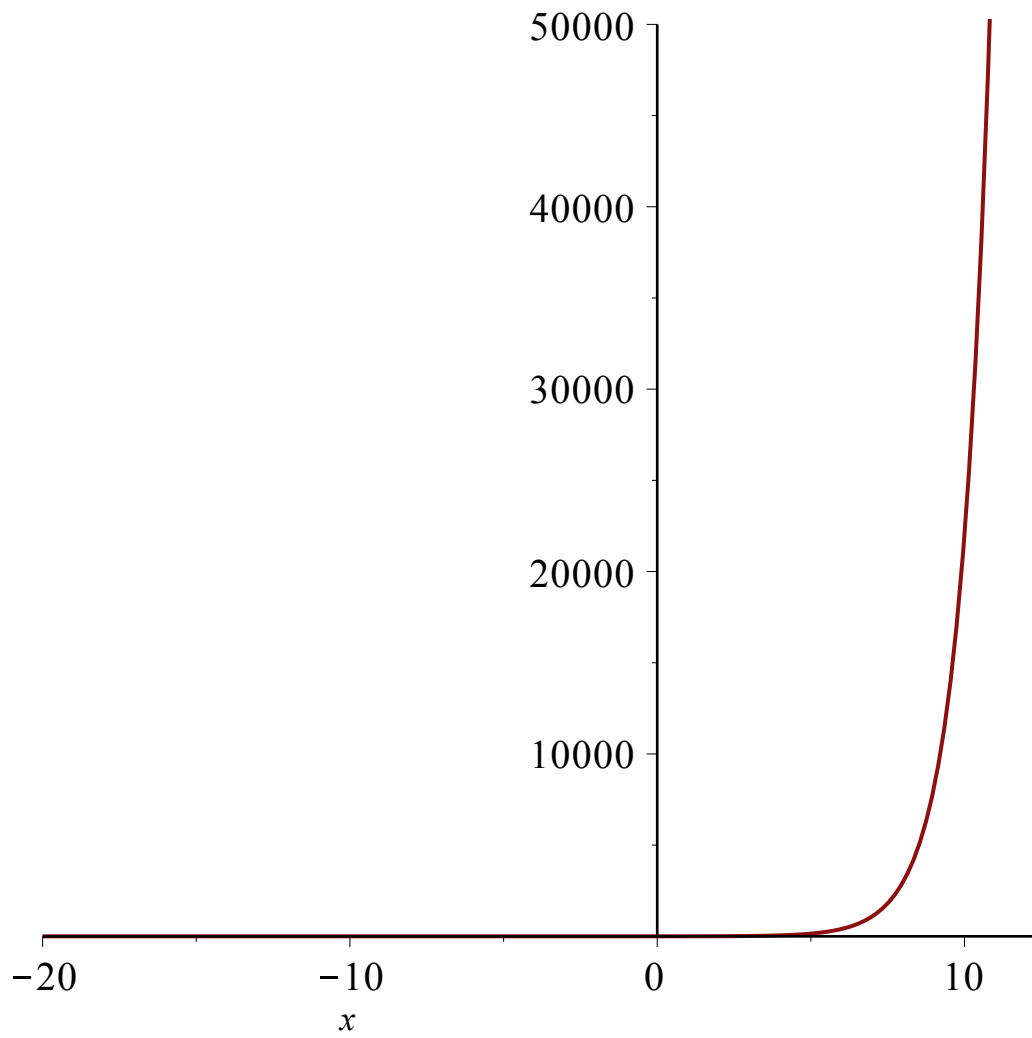
$$f2 := \frac{1}{x + 2}$$

(5)

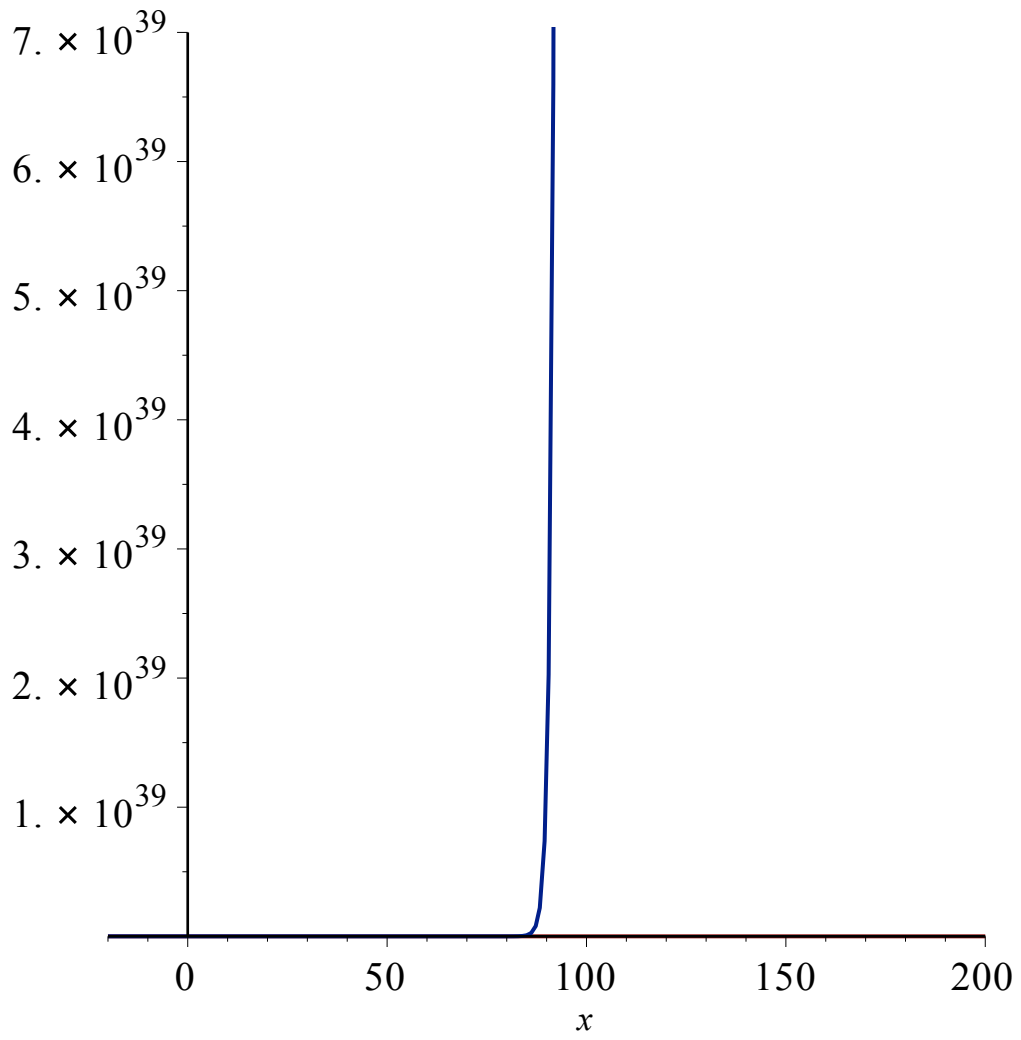
```
> plot({f(x), f2(x)}, x = -10 .. 10)
```



```
> plot(exp(x), x=-20 .. 20)
```



```
> plot( {exp(x), x10}, x=-20 ..200)
```

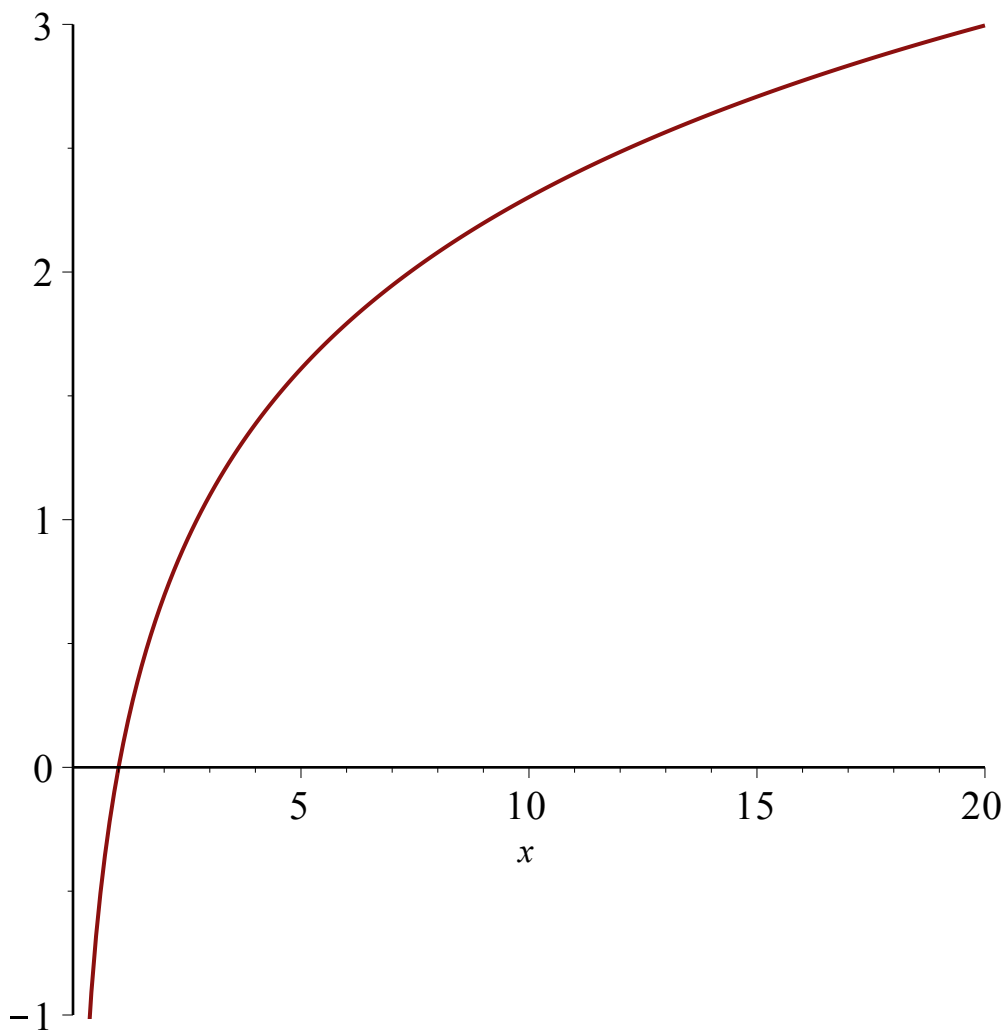


```
> ln(-1)
```

$I \pi$

(6)

```
> plot(ln(x), x = 0 .. 20)
```



```
> evalf(exp(50))
```

5.184705529 10²¹

(7)

```
> evalf(ln(exp(50)))
```

50.

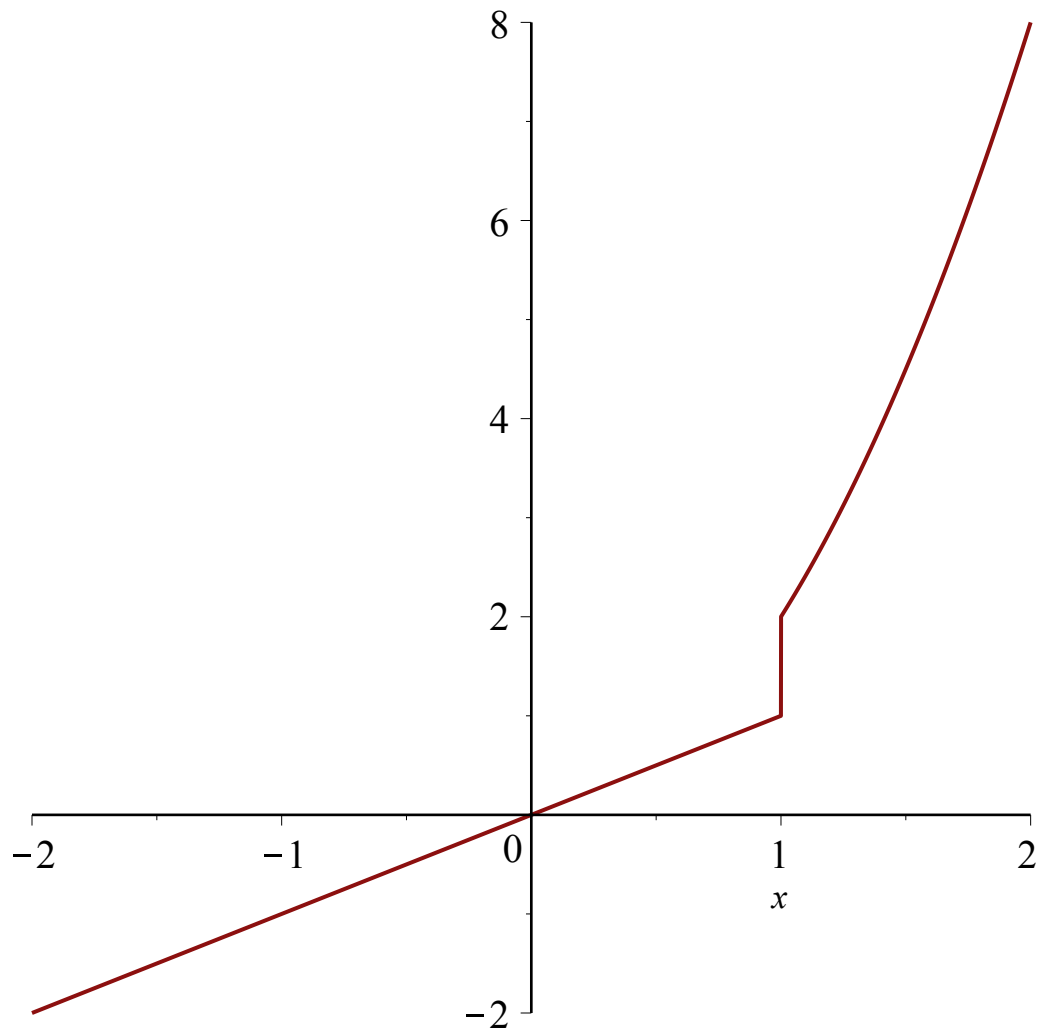
(8)

```
> hh := x -> { x   x ≤ 1
               2·x2 x > 1
```

hh := x → piecewise(x ≤ 1, x, 1 < x, 2 x²)

(9)

```
> plot(hh(x), x = -2 .. 2)
```

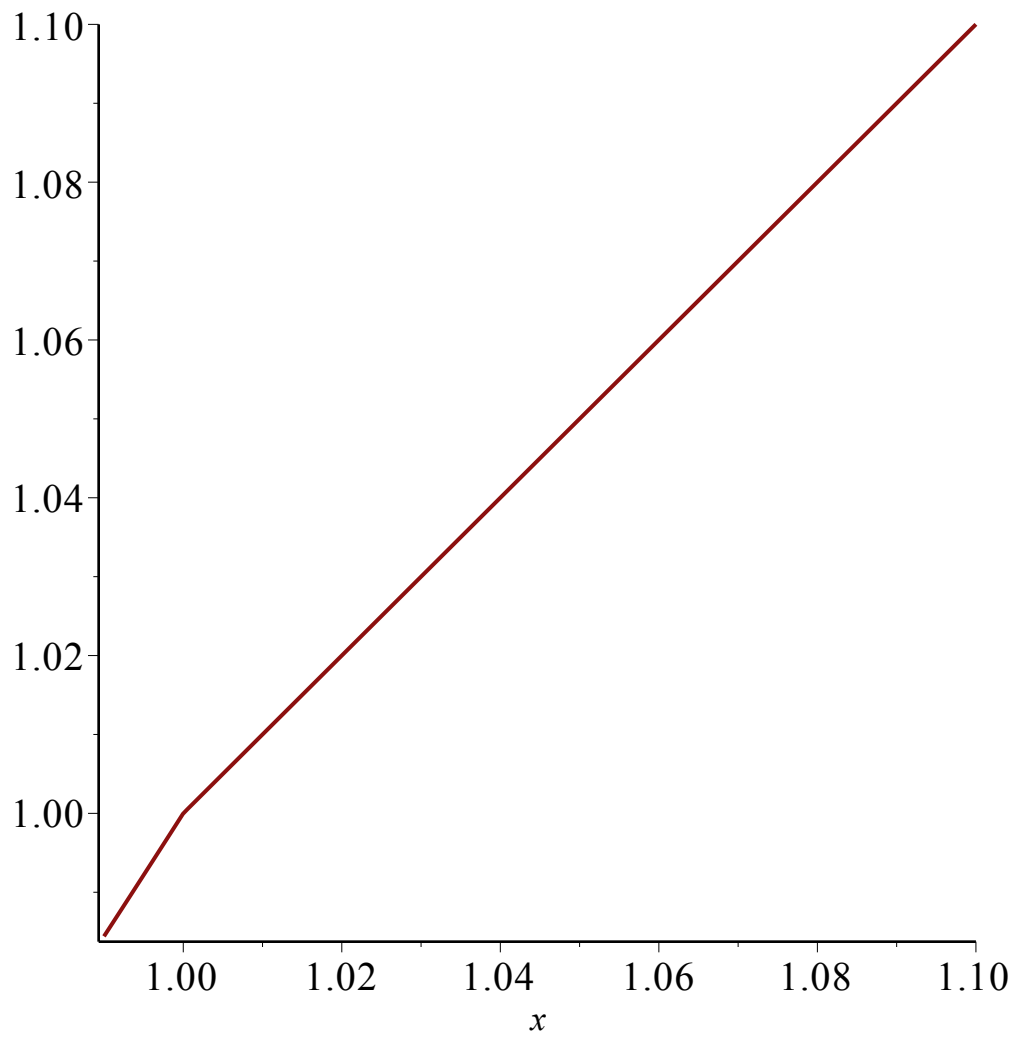


```
> jj := x → piecewise(x ≤ -1, x, -1 < x < 1, tan( Pi / 4 · x ), x ≥ 1, x)
```

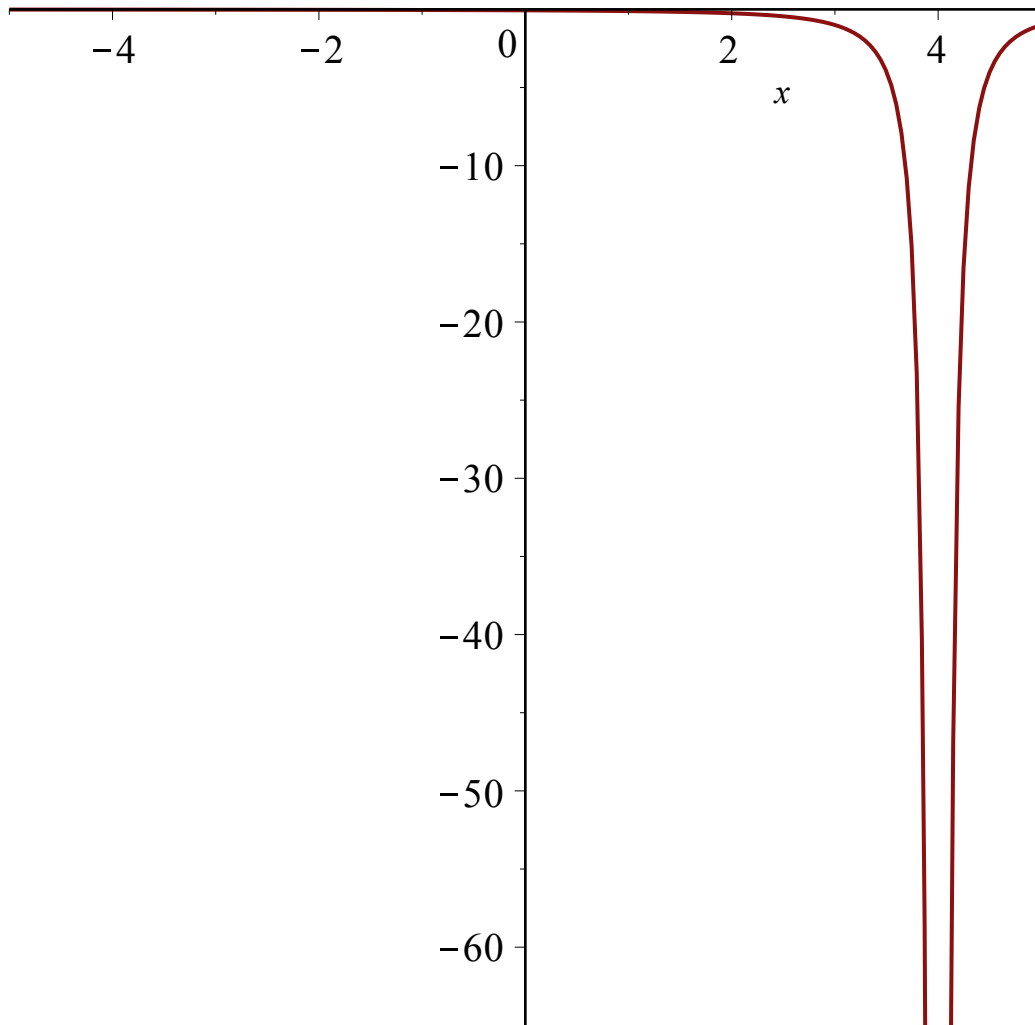
```
jj := x → piecewise(x ≤ -1, x, -1 < x and x < 1, tan( 1/4 π x ), 1 ≤ x, x)
```

(10)

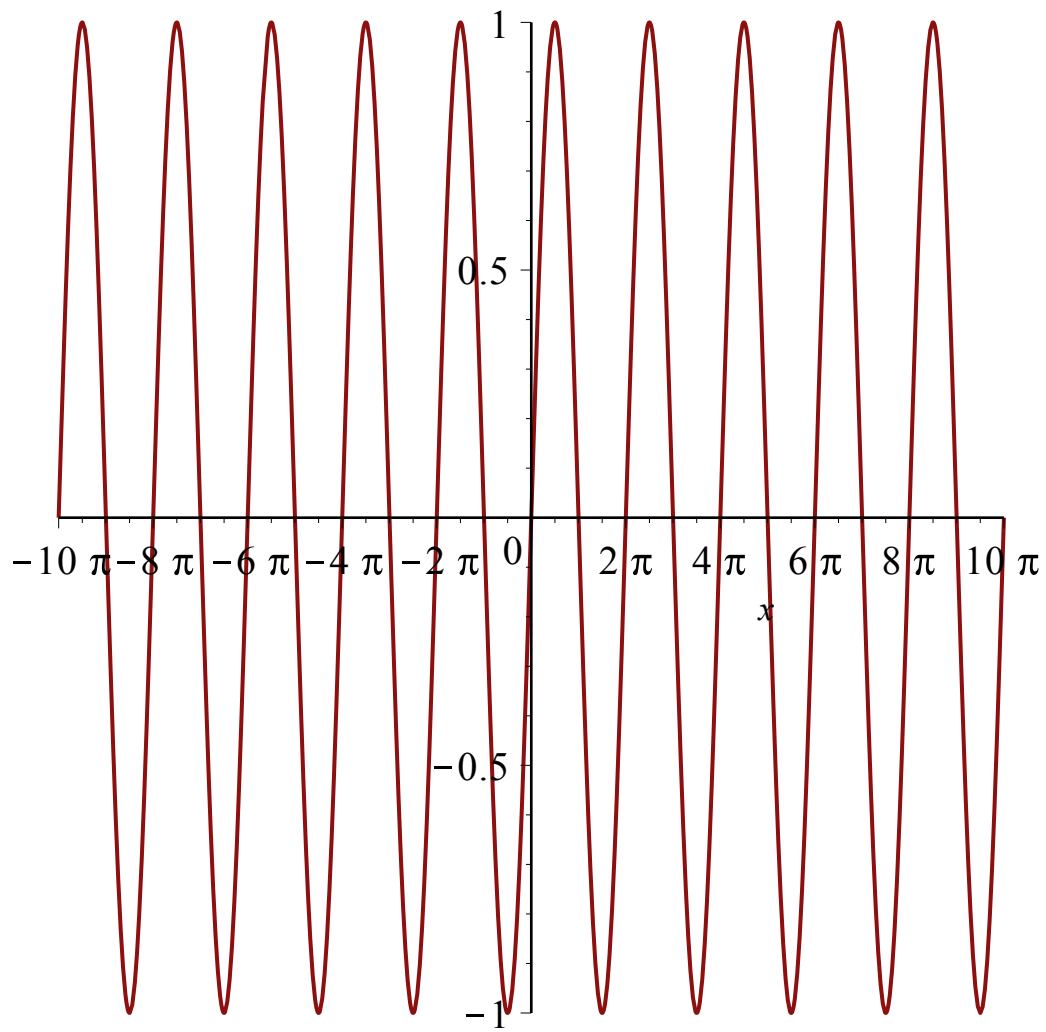
```
> plot(jj(x), x = .99 .. 1.1)
```



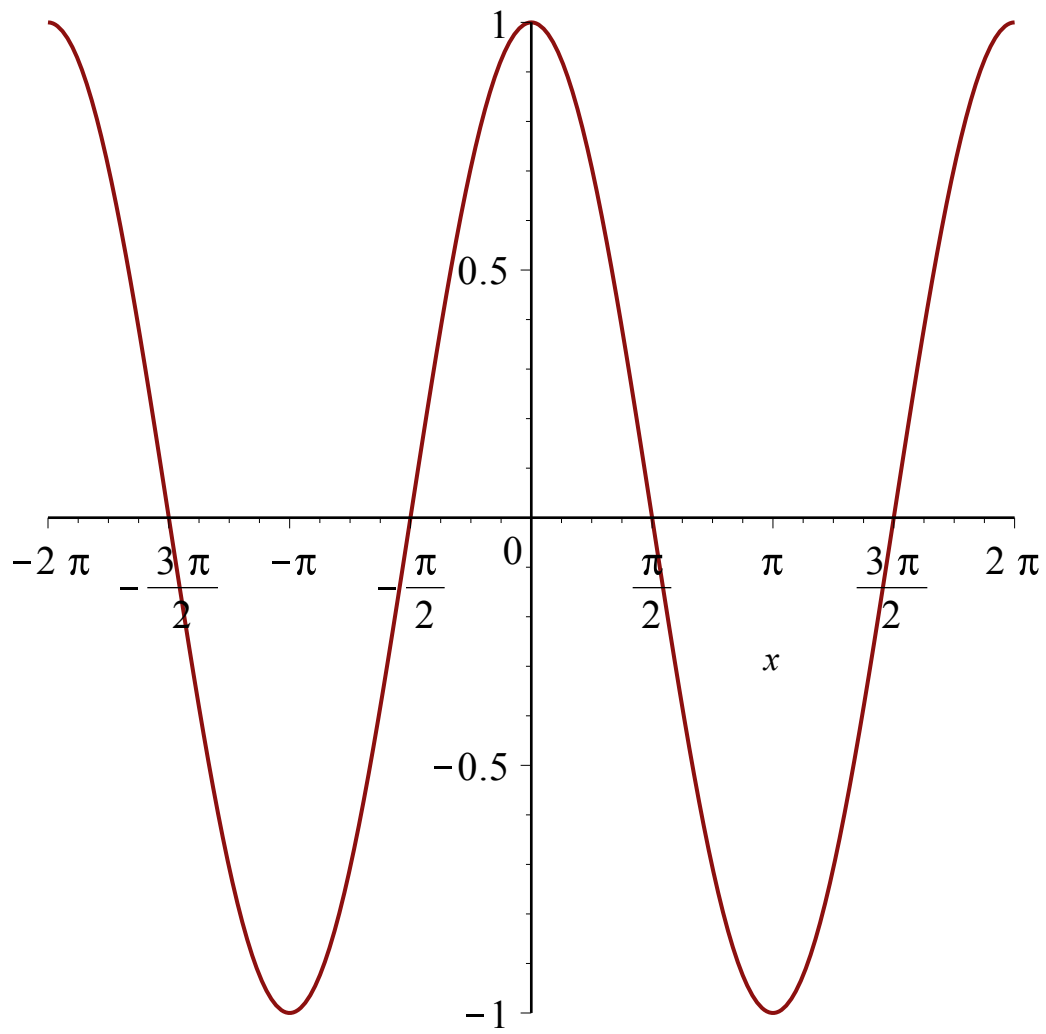
```
> plot(  $\frac{-1}{(x-4)^2}$ , x=-5..5 )
```



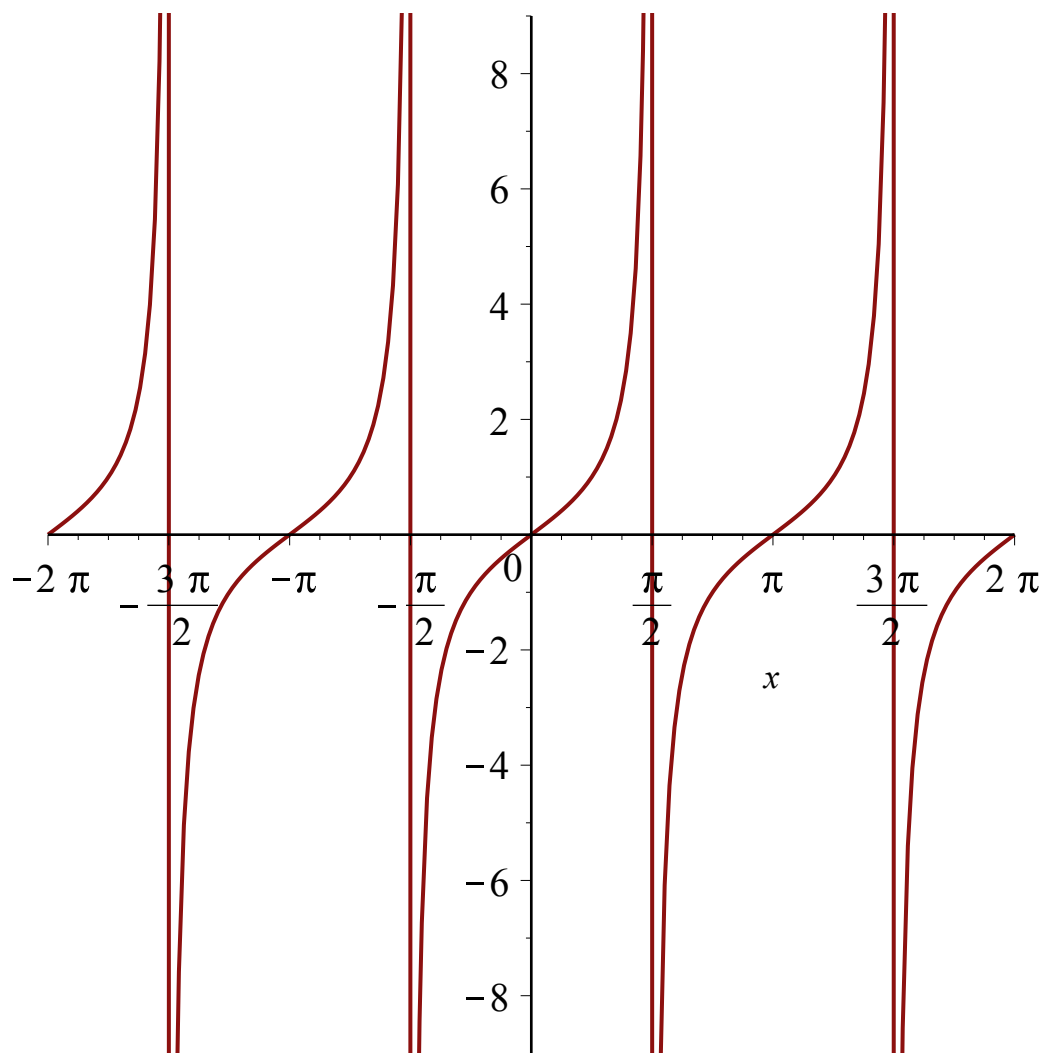
```
> plot( { sin(x), cos(x - Pi/2) }, x = -10*Pi .. 10*Pi )
```

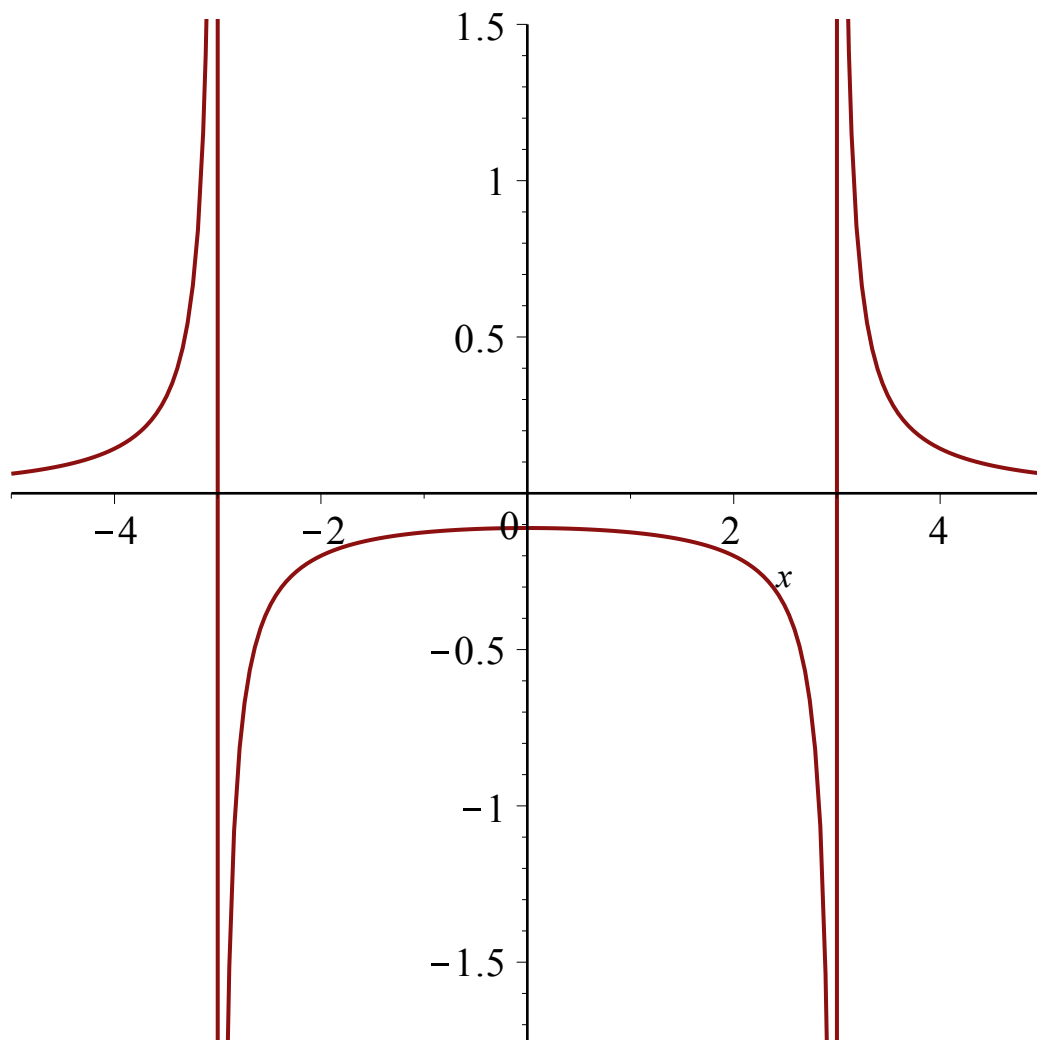
```
> plot(cos(x), x=-2·Pi..2·Pi)
```



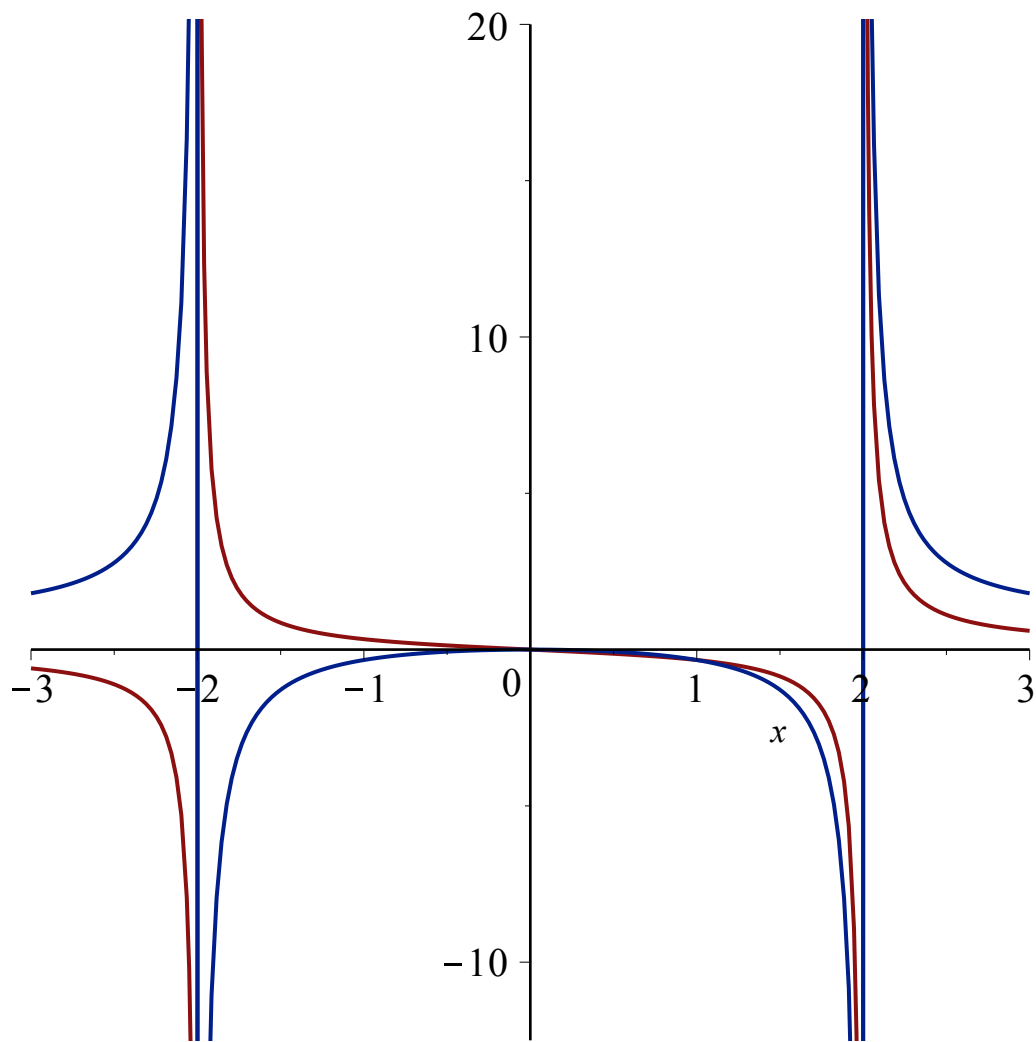
```
> plot(tan(x), x = -2·Pi .. 2·Pi)
```



> $\text{plot}\left(\frac{1}{x^2 - 9}, x = -5 \dots 5\right)$



```
> plot( { {  $\frac{x^2}{x^2 - 4}$ ,  $\frac{x}{x^2 - 4}$  }, x = -3 .. 3 )
```



```
> plot(1/(exp(x) - 1), x = -1 .. 1)
```

