

factor($x^8 - 1$);

$$(x - 1) (x + 1) (x^2 + 1) (x^4 + 1) \quad (1)$$

> *expression* := $e^x + \ln(x)$;

$$\textit{expression} := e \quad (2)$$

> ?*eval*

> *eval*(*expression*, $x = 1$);

$$e \quad (3)$$

> ?*subs*

> *subs*($x = 1$, *expression*);

$$e \quad (4)$$

> $g := e^x - \sin(x)$;

$$g := e^x - \sin(x) \quad (5)$$

> *eval*(g , $x = 0$);

$$1 \quad (6)$$

> $D(g)(x)$;

$$D(e^x)(x) - D(\sin(x))(x) \quad (7)$$

> *eval*(f , $x = 0$);

$$0 \quad (8)$$

> $\int g \, dx$

$$\cos(x) + e^x \quad (9)$$

> $\int_{-1}^1 g \, dx$;

$$-e^{-1} + e \quad (10)$$

> $f := \textit{unapply}((D@@2)(g)(x), x)$;

$$f := x \mapsto D^{(2)}(e^x)(x) - D^{(2)}(\sin(x))(x) \quad (11)$$

> $f(0)$;

$$0 \quad (12)$$

> *eval*($f(x)$, $x = 0$);

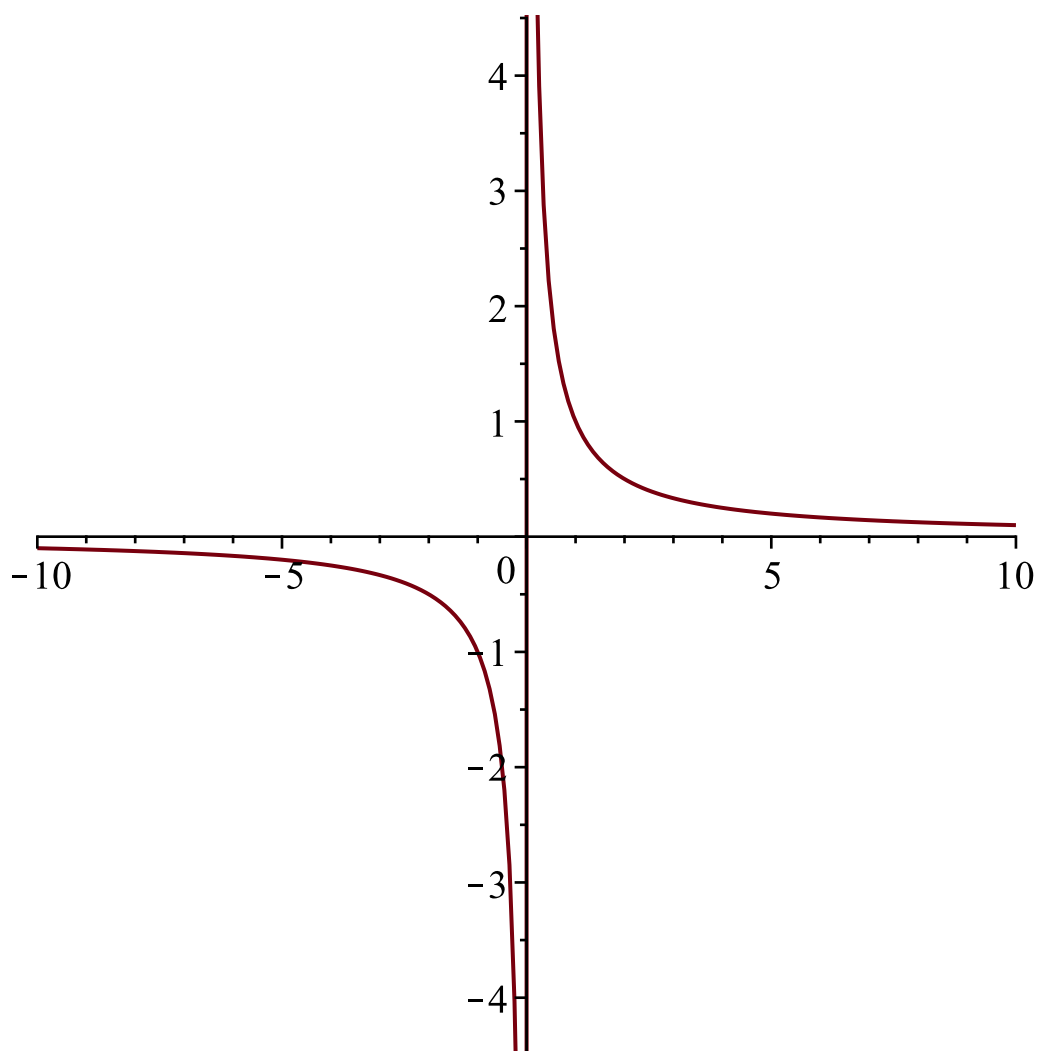
$$0 \quad (13)$$

>

> $f := \textit{unapply}\left(\frac{1}{x}, x\right)$;

$$f := x \mapsto \frac{1}{x} \quad (14)$$

> *plot*(f);



```
>
```

```
> x_a := 2*cos( t/3 );
```

$$x_a := 2 \cos\left(\frac{t}{3}\right)$$

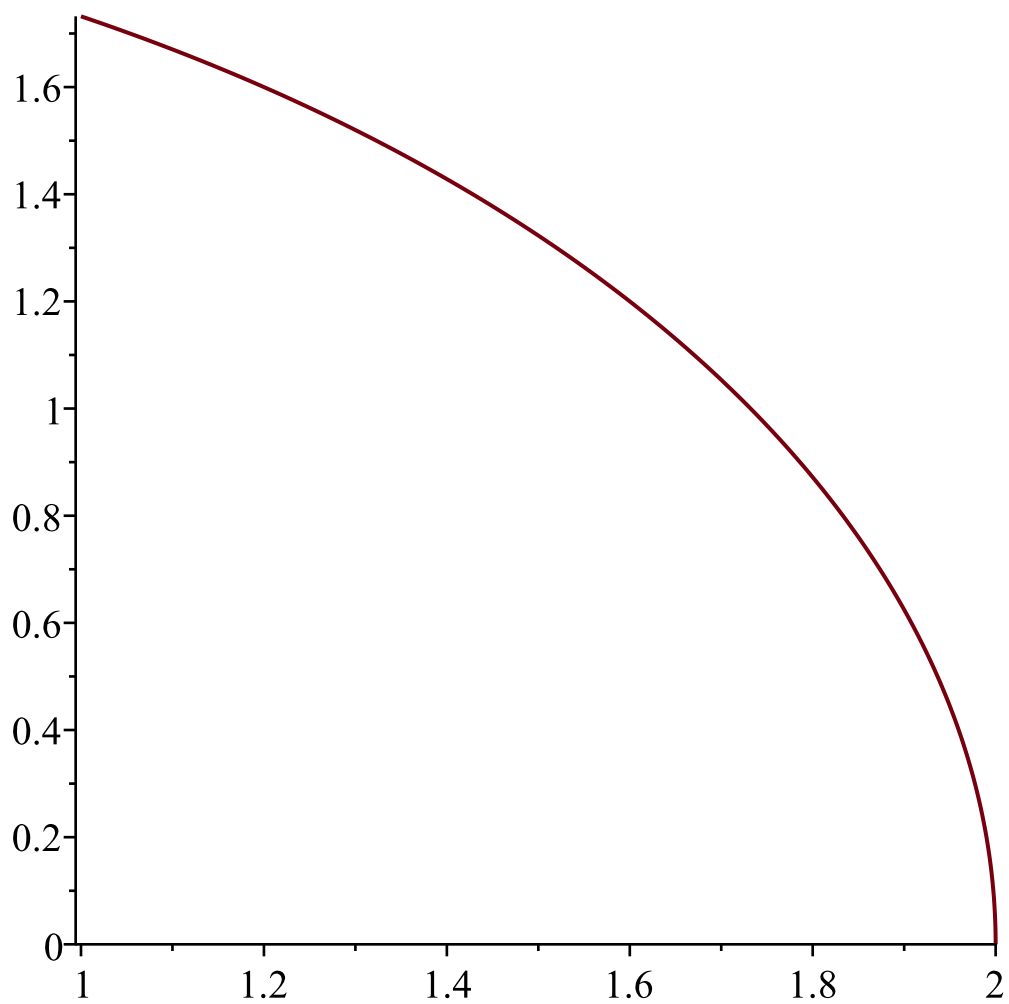
(15)

```
> y_a := 2*sin( t/3 );
```

$$y_a := 2 \sin\left(\frac{t}{3}\right)$$

(16)

```
> plot( [x_a, y_a, t=0..pi] );
```



```
> x_b := cos(4·t);
```

```
x_b := cos(4 t)
```

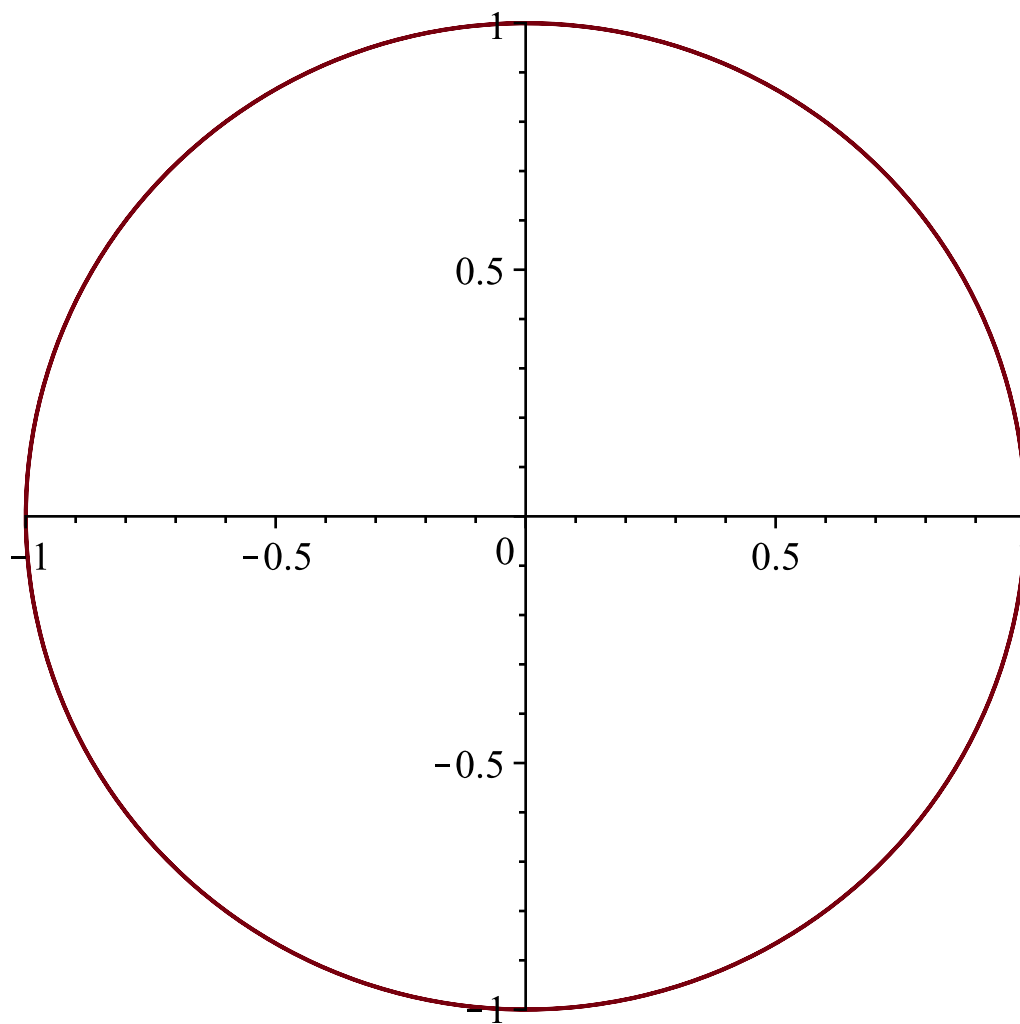
(17)

```
> y_b := sin(4·t);
```

```
y_b := sin(4 t)
```

(18)

```
> plot([x_b, y_b, t=0..π]);
```



```

=>
> H := unapply( $x^2 + y^2$ , x, y);
                                      $H := (x, y) \mapsto y^2 + x^2$ 
=> plot3d(H(x, y), x=-10..10, y=-10..10);

```

(19)

