

```
[> with(plots)
```

### Oppgave 9.6.10

a)

(i)

```
[> plot(y^3, y = 0 .. 2);
```

(ii)

$$z = (x^2 + y^2)^{\frac{3}{2}} = r^3$$

(iii)

```
> plot3d([r, theta, r^3], r = 0 .. 2, theta = 0 .. 2 * Pi, coords = cylindrical, axes = boxed, color = yellow, labels = [x, y, z])
```

f)

(i)

```
> implicitplot(y^4 + z^4 = 1, y = -1 .. 1, z = -1 .. 1)
```

(ii)

$$(y^2 + x^2)^2 + z^4 = 1$$

(iii)

```
> implicitplot3d((y^2 + x^2)^2 + z^4 = 1, x = -1 .. 1, y = -1 .. 1, z = -1 .. 1, labels = [x, y, z], axes = framed)
```

For å få en litt penere figur, kan vi føye til `style = surfacecontour` og ta med litt flere punkter:

```
> implicitplot3d((y^2 + x^2)^2 + z^4 = 1, x = -1 .. 1, y = -1 .. 1, z = -1 .. 1, numpoints = 20000, style = surfacecontour, axes = boxed, labels  
= [x, y, z])
```

```
>
```