

> *with(plots)*
[*animate, animate3d, animatecurve, arrow, changecoords, complexplot, complexplot3d, conformal, conformal3d, contourplot,*
contourplot3d, coordplot, coordplot3d, densityplot, display, dualaxisplot, fieldplot, fieldplot3d, gradplot, gradplot3d, implicitplot,
implicitplot3d, inequal, interactive, interactiveparams, intersectplot, listcontplot, listcontplot3d, listdensityplot, listplot, listplot3d,
loglogplot, logplot, matrixplot, multiple, odeplot, pareto, plotcompare, pointplot, pointplot3d, polarplot, polygonplot,
polygonplot3d, polyhedra_supported, polyhedraplot, rootlocus, semilogplot, setcolors, setoptions, setoptions3d, spacecurve,
sparsematrixplot, surfdata, textplot, textplot3d, tubeplot]

(1

Oppgave 9.6.10

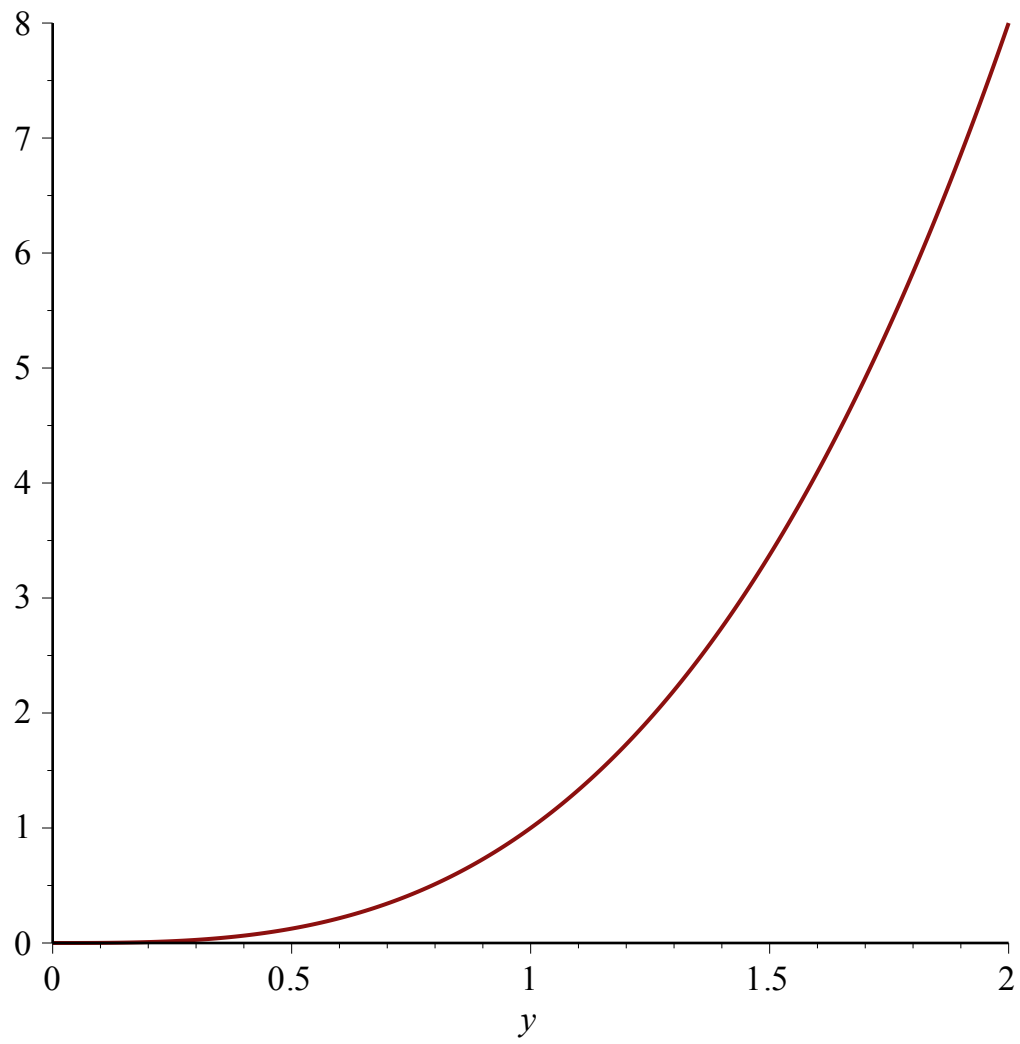
a)

(i)

> *plot(y³, y = 0 .. 2);*

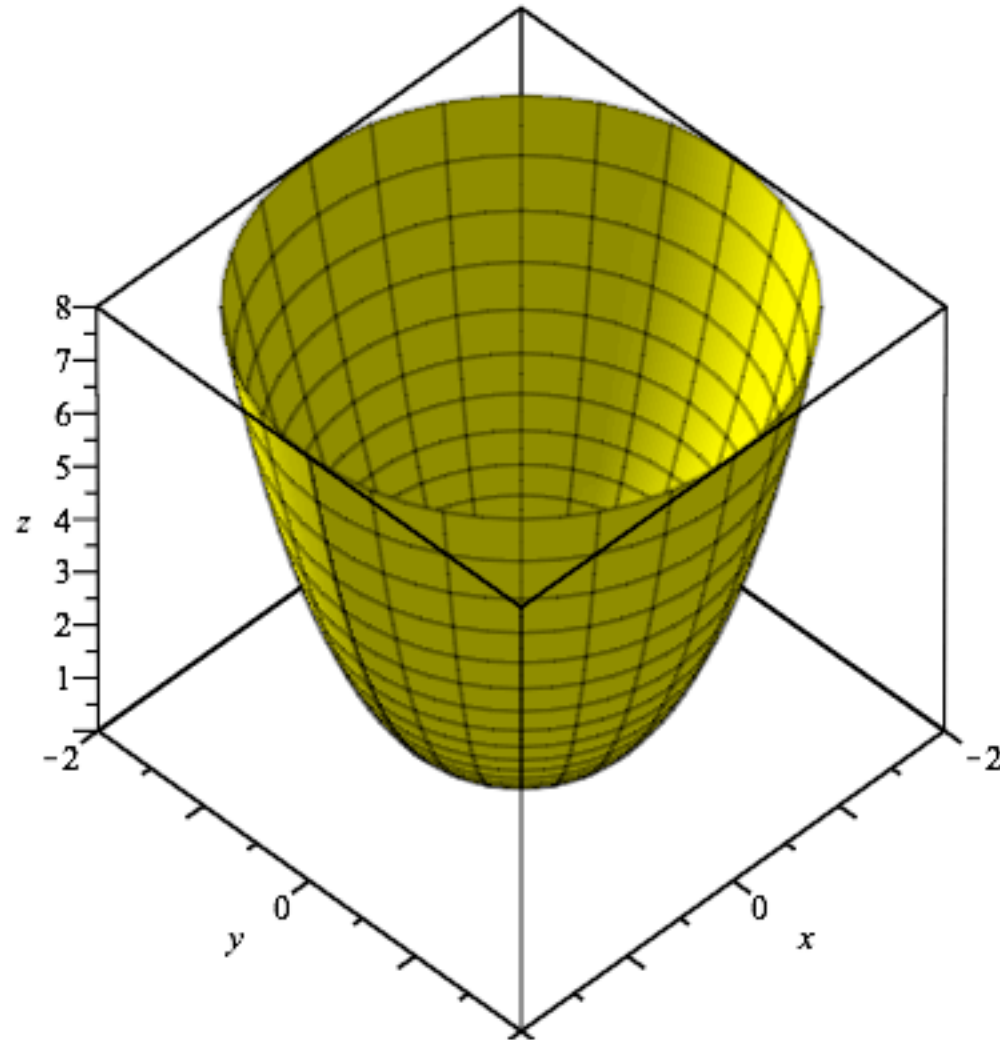
(ii)

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



(iii)

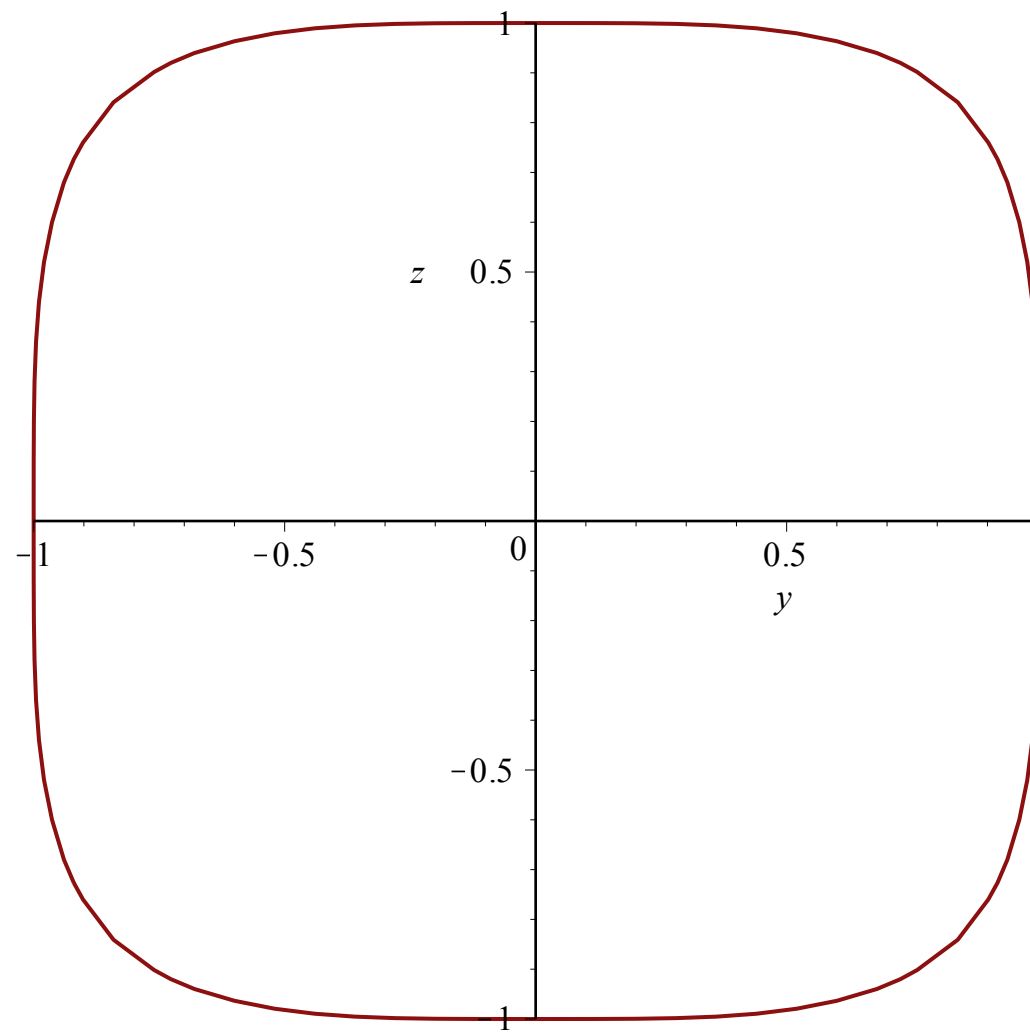
> `plot3d([r, theta, r3], r = 0..2, theta = 0..2·Pi, coords = cylindrical, axes = boxed, color = yellow, labels = [x, y, z])`



f)

(i)

> *implicitplot*($y^4 + z^4 = 1$, $y = -1 \dots 1$, $z = -1 \dots 1$)

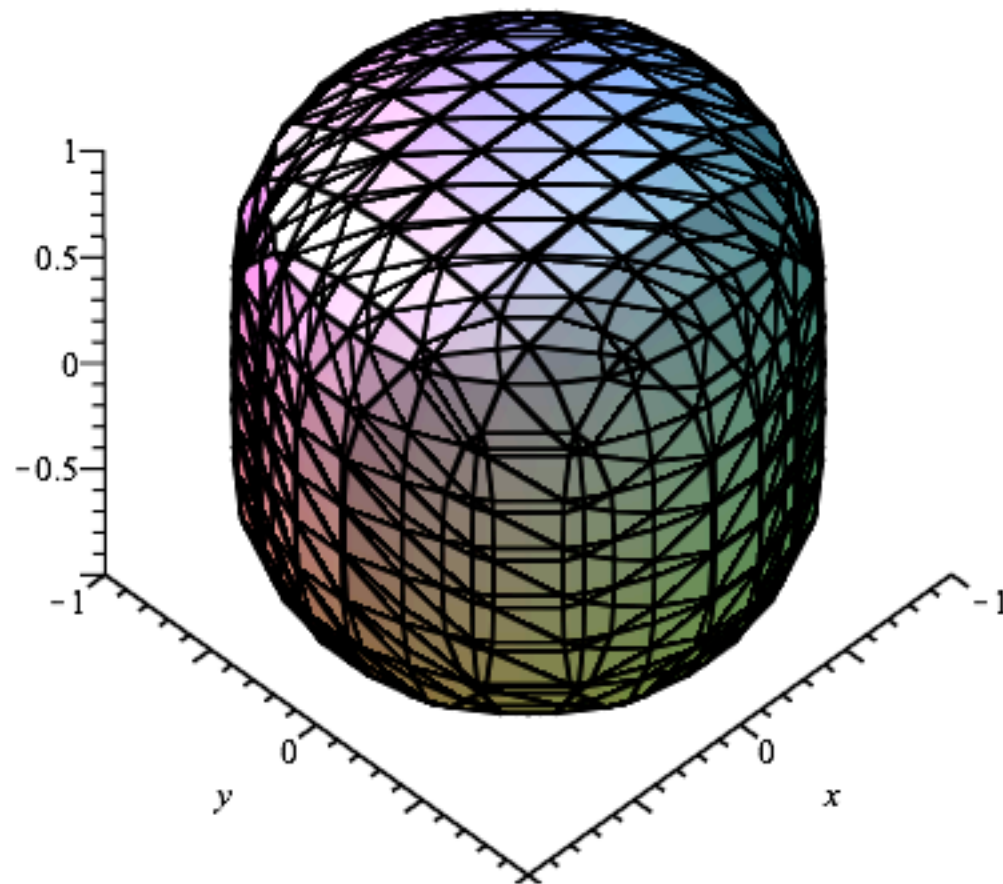


(ii)

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

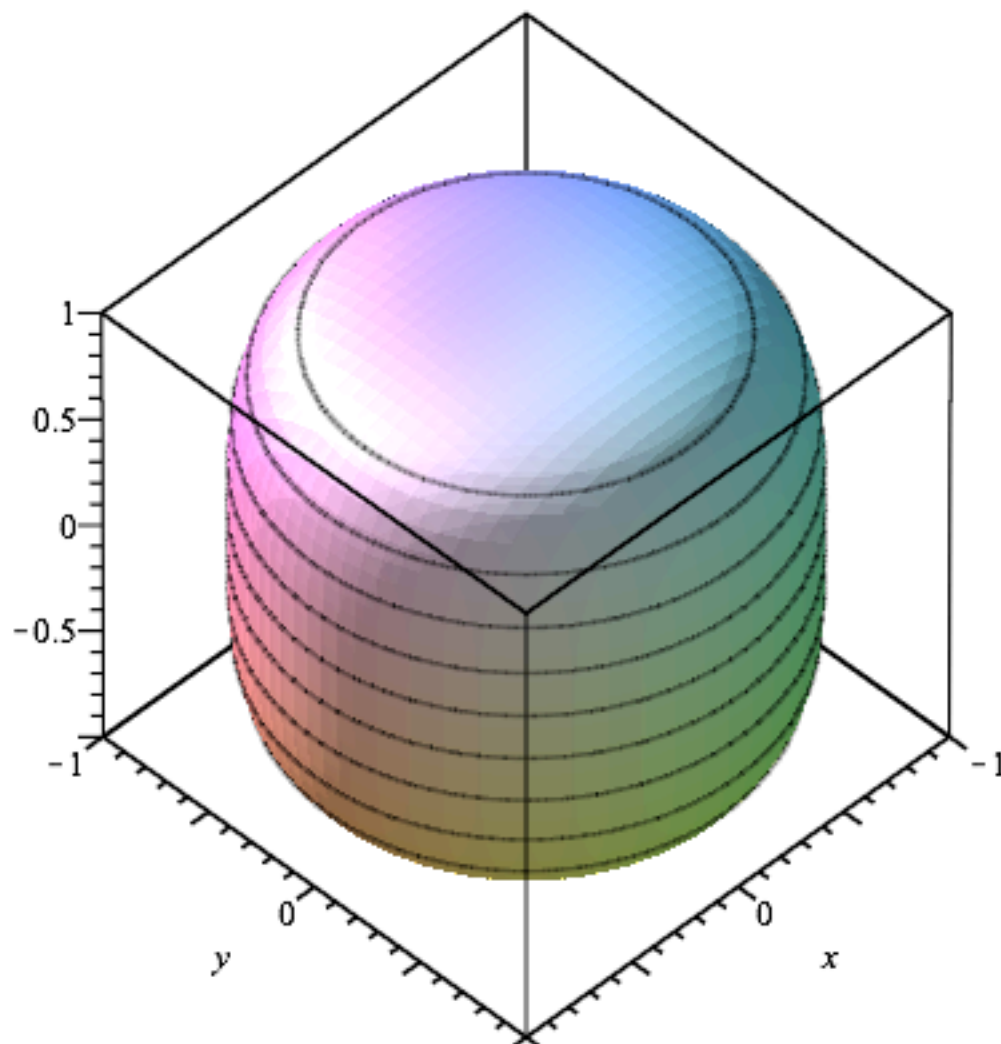
(iii)

> `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((y2 + x2)2 + z4 = 1, x = -1 ..1, y = -1 ..1, z = -1 ..1, numpoints = 20000, style = surfacecontour, axes = boxed, labels  
= [x, y, z])
```



```
>
```