

# Plotning af plant område med "plot2D" fra Steens plot2D3D-Maple-pakken

```
restart  
with(plots) :  
with(plot2D3D) = [plot2D, plot3D]
```

Pakken "plot2D3D" hentes på: <https://steen-toft.dk/mat/maple/pakker/>

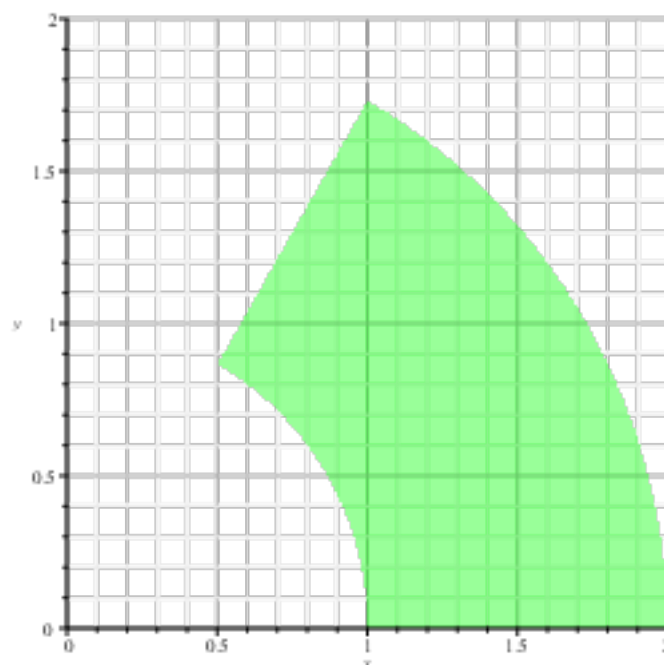
## ▼ Eksempel 1

Forskriften for parametriseringen angives som "**expression**" og parameterområderne som "**list**":

```
R1 := <v*cos(u), v*sin(u)> :
```

```
INT := [0, π/3, 1, 2] :
```

```
display(plot2D(R1, INT), color = green, gridlines, style = surface, transparency = 0.6, view = [0 ..2, 0 ..2], labels = [x, y])
```

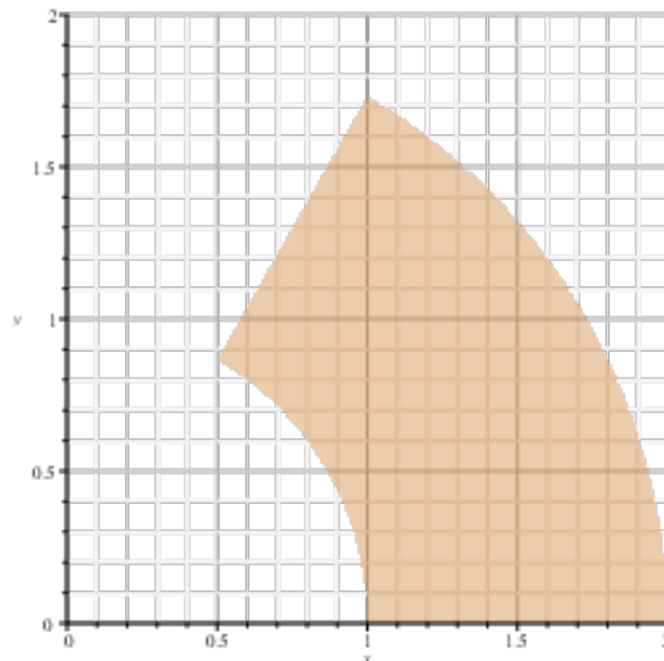


Hvis parametriseringen er givet som en "**function**", så anvender man blot **R2(u, v)** i kaldet af *plot2D*:

```
R2(u, v) := <v*cos(u), v*sin(u)> :
```

```
INT := [0, π/3, 1, 2] :
```

```
display(plot2D(R2(u, v), INT), color = gold, gridlines, style = surface, transparency = 0.6, view = [0 ..2, 0 ..2], labels = [x, y])
```



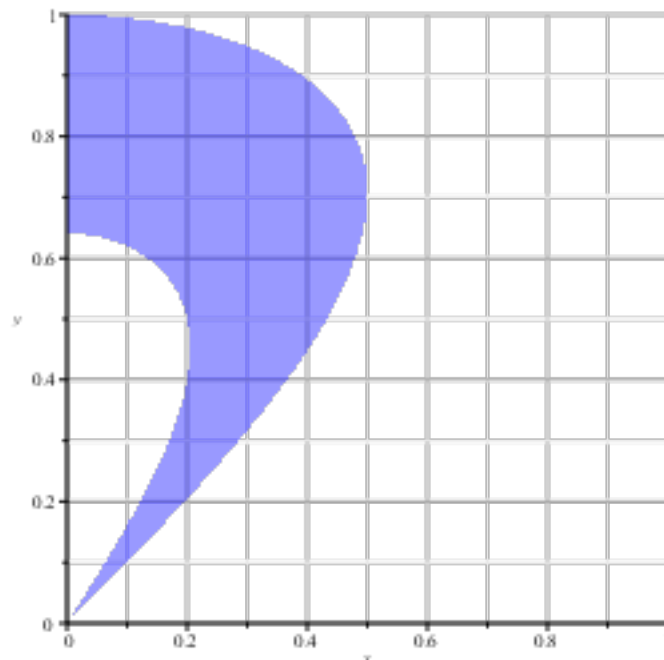
## Eksempel 2

Forskriften for parametriseringen angives som **"expression"** og parameterområderne som **"list"**:

$$R3 := \langle v^4 \cdot \sin(u) \cdot \cos(u), v^2 \cdot \cos(u) \rangle :$$

$$INT := \left[ 0, \frac{\pi}{2}, \frac{4}{5}, 1 \right] :$$

`display(plot2D(R3, INT), color = blue, gridlines, style = surface, transparency = 0.6, view = [0 ..1, 0 ..1], labels = [x, y])`



Hvis parametriseringen er givet som en **"function"**, så anvender man blot  **$R4(u, v)$**  i kaldet af `plot2D`:

$$R4(u, v) := \langle v^4 \cdot \sin(u) \cdot \cos(u), v^2 \cdot \cos(u) \rangle :$$

$$INT := \left[ 0, \frac{\pi}{2}, \frac{4}{5}, 1 \right] :$$

`display(plot2D(R4(u, v), INT), color = red, gridlines, style = surface, transparency = 0.6, view = [0 ..1, 0 ..1], labels = [x, y])`

