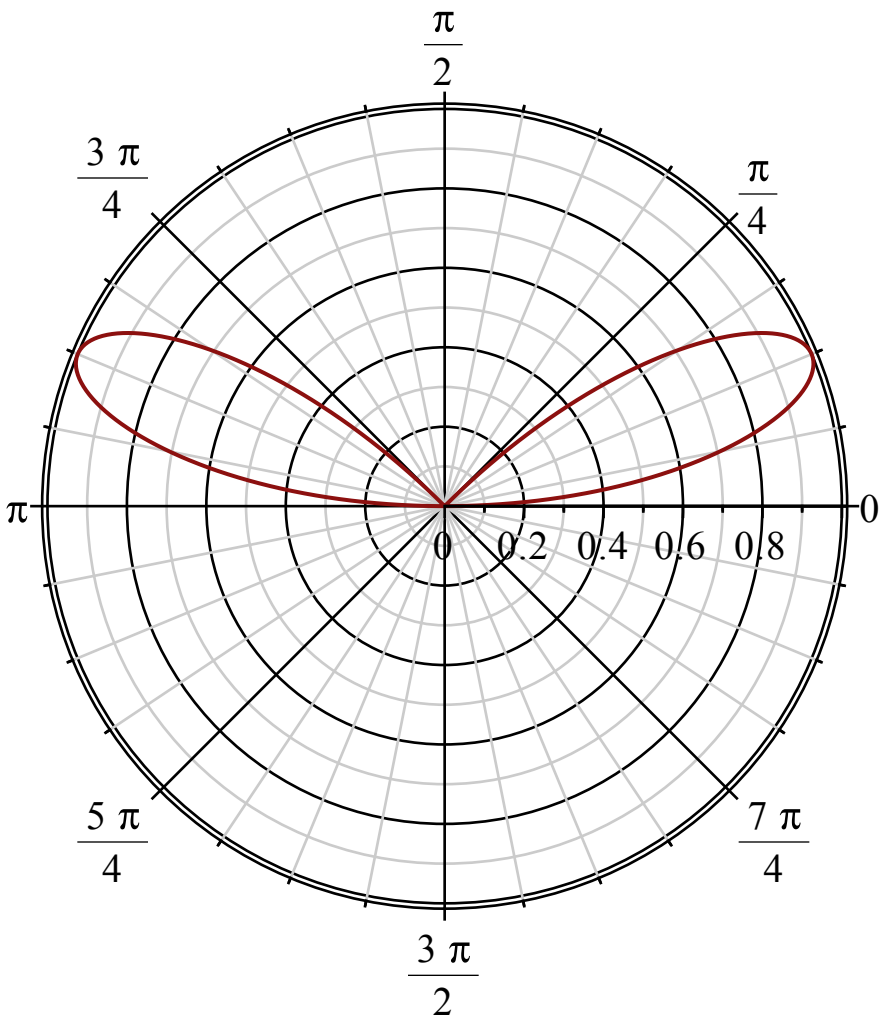
```
> with(plots):
```

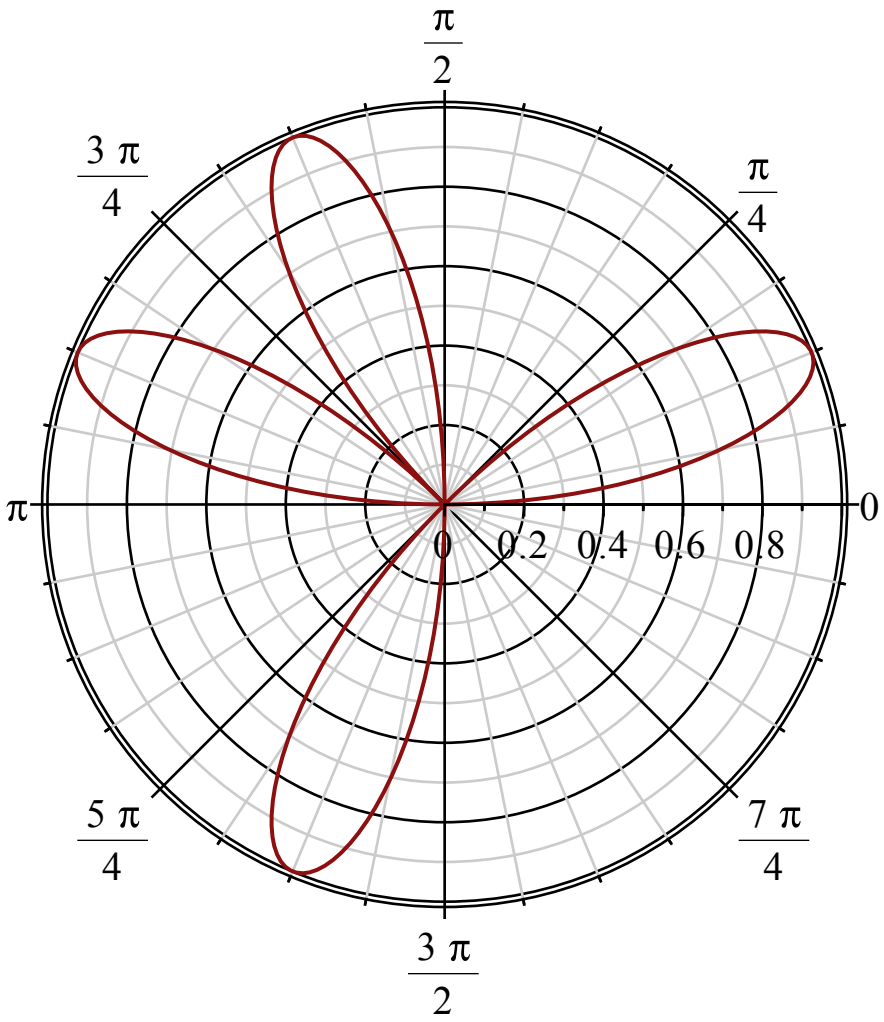
what we plotted today on one period

```
> polarplot(sin(4*t), t = -Pi/4 .. Pi/4)
```



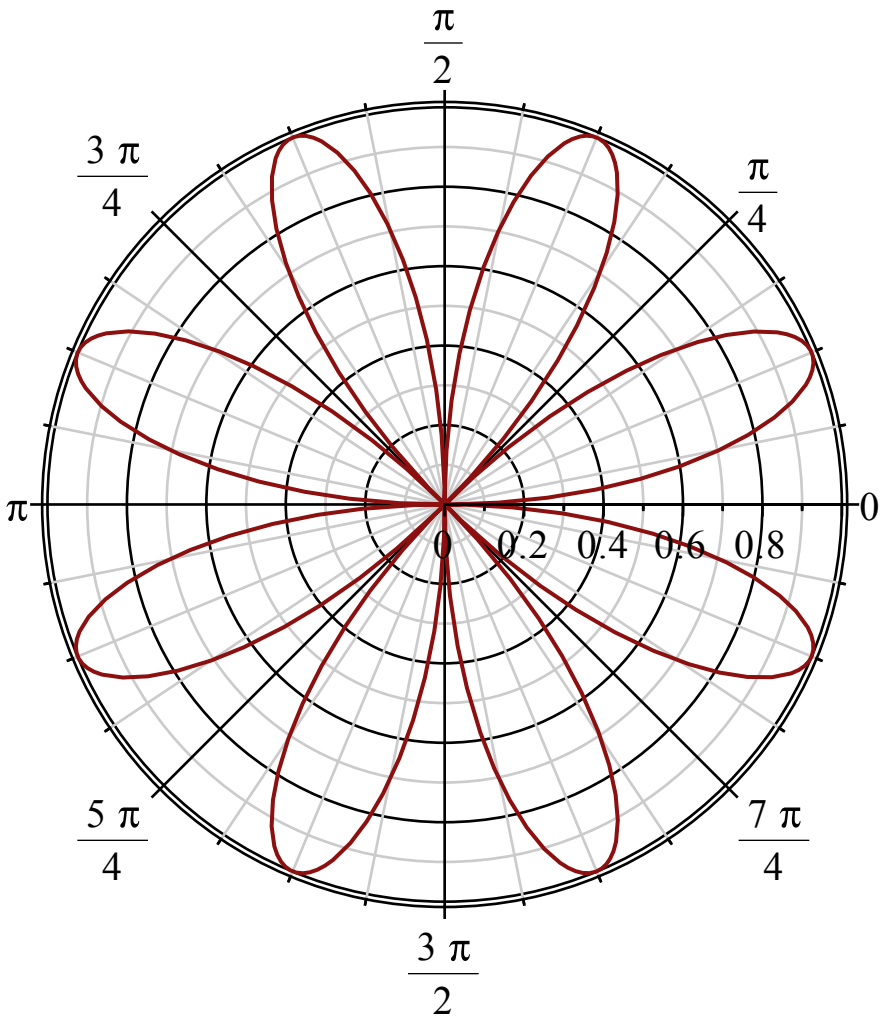
two periods (rotate the plot above by Pi/2)

```
> polarplot(sin(4*t), t = -Pi/4 .. 3*Pi/4)
```



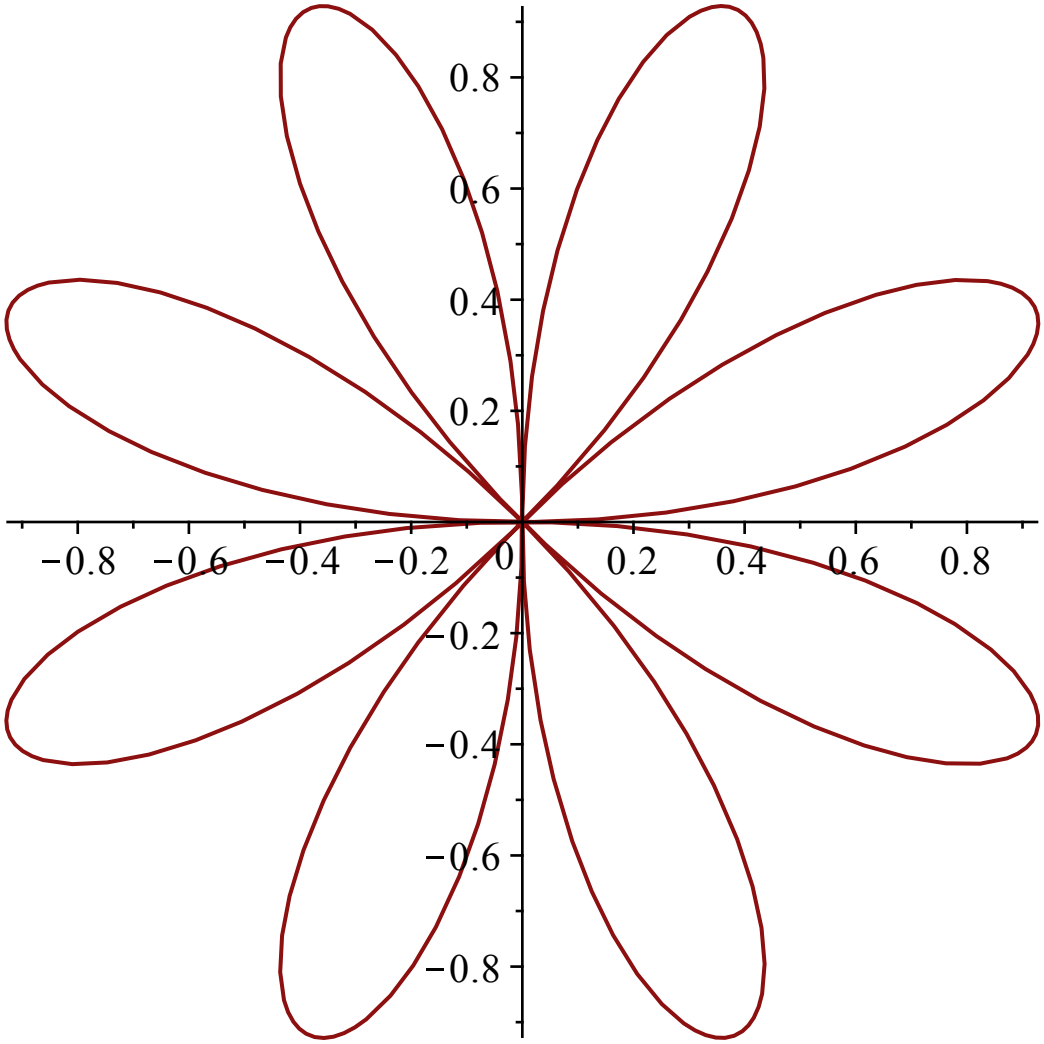
fill the plane (plot for t on an interval of lenght 2Pi, or, rotate again, and again)

> $polarplot\left(\sin(4\cdot t), t = -\frac{Pi}{4} .. \frac{7\cdot Pi}{4}\right)$



same thing plotted in rectangular coordinates (using x=r cos(t), y=r sin(t) we write plot([x,y,t=tmin..tmax])

> $plot\left(\left[\sin(4\cdot t)\cdot\cos(t), \sin(4\cdot t)\cdot\sin(t), t=-\frac{Pi}{4}..\frac{7\cdot Pi}{4}\right]\right)$



and now animate

```
> plots[animate](polarplot, [sin(4·t), t = 0..A], A = 0.01..2·Pi)
```

$A = 6.2832$