

Tehtävä 1

```
> with(linalg) :
```

```
> A := matrix(3, 3, [1, t, t, t, 1, t, t, t, 1])
```

$$A := \begin{bmatrix} 1 & t & t \\ t & 1 & t \\ t & t & 1 \end{bmatrix}$$

(1.1)

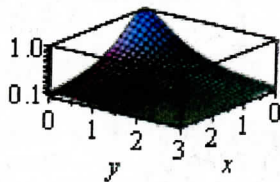
```
> eigenvals(A) # Matriisin A ominaisarvot
```

$$1 + 2t, 1 - t, 1 - t$$

(1.2)

Tehtävä 3

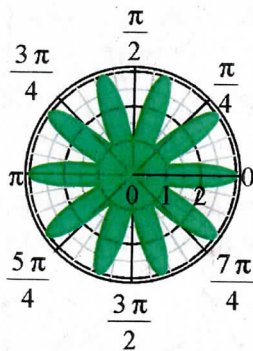
```
> plot3d(1 / ((1 + x^2) * (1 + y^2)), x = 0..3, y = 0..3, scaling = constrained)
```



Tehtävä 4

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

```
> polarplot(2 + cos(10*t), t = 0..2*Pi, color = green, filled = true)
```



```
> assume(n, integer)
```

```
> int(cos(n*t)^2, t = 0..2*Pi)
```

π

(3.1)