

8.2.2

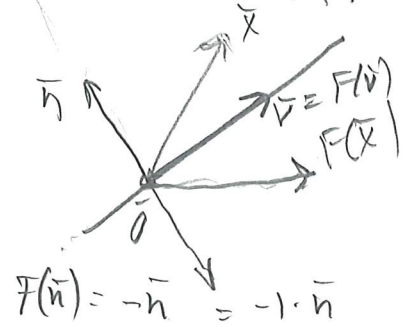
F spegling i  $2x - 3y = 0$ 

Egenvärden, egenvektorer, arb. matrix A.

$$\bar{n} = \underline{e} \begin{pmatrix} 2 \\ -3 \end{pmatrix} \text{ normal}$$

egenvektorer, egenvärde  $\lambda = -1$ 

$$t \underline{e} \begin{pmatrix} 2 \\ -3 \end{pmatrix}, t \neq 0$$



$$\bar{v} = \underline{e} \begin{pmatrix} 3 \\ 2 \end{pmatrix} \text{ riktn. egenvektorer}$$

$$t \underline{e} \begin{pmatrix} 3 \\ 2 \end{pmatrix}, t \neq 0$$

$$F(\bar{v}) = \bar{v} = 1 \cdot \bar{v}$$

egenvärden  $\lambda = 1$ 

$$\bar{f}_1 = \bar{n}, \bar{f}_2 = \bar{v} \text{ ny bas}$$

$$A_f = \begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}$$

$F(\bar{f}_1) = -\bar{f}_1$      $F(\bar{f}_2) = \bar{f}_2$

$$T = \begin{pmatrix} 2 & 3 \\ -3 & 2 \end{pmatrix}$$

$f_1 \quad f_2$

$$T = \frac{1}{13} \begin{pmatrix} 2 & -3 \\ 3 & 2 \end{pmatrix}$$

$$A_e = T A_f T^{-1}$$