93 a. Kvadratkomplettera värdet av:
\[ x^2 + 2xy + 3y^2 = (x+y)^2 + y^2 = (x+y)^2 + (\sqrt{2})^2 \]
Om vi tillämpar en slöning som för

till xy till z = y till \( y = \frac{(x+y)^2}{2} \) dels \( \sqrt{2} x + y \)
så är slöning cirkeln

\[ x^2 + y^2 = 1 \]

vi kan

\[ \begin{pmatrix} \frac{1}{\sqrt{2}} \\ \frac{1}{\sqrt{2}} \end{pmatrix} \]

där: A = \( 1 \ 0 \) tle

vi kan skriva cirkeln som

\[ \begin{pmatrix} 1 \times \frac{1}{\sqrt{2}} \\ 1 \times \frac{1}{\sqrt{2}} \end{pmatrix} \]

eller slöning är

\[ \begin{pmatrix} \sin \frac{\pi}{4} \\ \cos \frac{\pi}{4} \end{pmatrix} \]

där: cirkeln

\[ \begin{pmatrix} 1 \times \frac{1}{\sqrt{2}} \\ 1 \times \frac{1}{\sqrt{2}} \end{pmatrix} \]

del som är slöning på linjen (8,11)

för slöning

108. Vi vill att \( A \times z \neq z \), och skall visa
att \( B = \frac{1}{2} \) för något \( d \). Visa:

\[ B = \begin{pmatrix} d^2 \quad 5d + 7 \\ 5d + 7 \quad 2 \end{pmatrix} \]

\[ A = \begin{pmatrix} 2d^2 + 5d + 7 \\ 5d^2 + 2d + 7 \end{pmatrix} \]

\[ d = \begin{pmatrix} 2d^2 + 5d + 7 \\ 5d^2 + 2d + 7 \end{pmatrix} \]

\[ \begin{pmatrix} 2d^2 + 5d + 7 \\ 5d^2 + 2d + 7 \end{pmatrix} \]

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Vi ser att ett \( z \) är egenvärde till \( d \) med

eigenvektor \( e = \frac{1}{\sqrt{2}} x + \frac{1}{\sqrt{2}} y \), och vi har

och det ett olikvärde.
10.28. A has 3, B has 4, C has 2, D has 1.

10.29. A has 3, B has 2, C has 1, D has 0.

10.30. A has 3, B has 2, C has 1, D has 0.

10.31. A has 3, B has 2, C has 1, D has 0.

10.32. A has 3, B has 2, C has 1, D has 0.

10.33. A has 3, B has 2, C has 1, D has 0.

10.34. A has 3, B has 2, C has 1, D has 0.

10.35. A has 3, B has 2, C has 1, D has 0.

10.36. A has 3, B has 2, C has 1, D has 0.

10.37. A has 3, B has 2, C has 1, D has 0.

10.38. A has 3, B has 2, C has 1, D has 0.

10.39. A has 3, B has 2, C has 1, D has 0.

10.40. A has 3, B has 2, C has 1, D has 0.

10.41. A has 3, B has 2, C has 1, D has 0.

10.42. A has 3, B has 2, C has 1, D has 0.

10.43. A has 3, B has 2, C has 1, D has 0.

10.44. A has 3, B has 2, C has 1, D has 0.

10.45. A has 3, B has 2, C has 1, D has 0.

10.46. A has 3, B has 2, C has 1, D has 0.

10.47. A has 3, B has 2, C has 1, D has 0.

10.48. A has 3, B has 2, C has 1, D has 0.

10.49. A has 3, B has 2, C has 1, D has 0.

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10.93. A has 3, B has 2, C has 1, D has 0.

10.94. A has 3, B has 2, C has 1, D has 0.

10.95. A has 3, B has 2, C has 1, D has 0.

10.96. A has 3, B has 2, C has 1, D has 0.

10.97. A has 3, B has 2, C has 1, D has 0.

10.98. A has 3, B has 2, C has 1, D has 0.

10.99. A has 3, B has 2, C has 1, D has 0.

10.100. A has 3, B has 2, C has 1, D has 0.
Diagonalisering ber betyder att
determinantens produkt av egenvärden (med multipliciter), däremot
det d; detsats; det D = det A = d1 · d2 · d3 · ...
(Gäller även för djupare ber beteckning.)
Följd: det A = 0 => något d = 0, vilket
också visas genom: d = 0 egenvärde =>
AX = 0x = 0, idet räknas linjär => det A = 0

Vidare: A egenvärde λ = AX = AX = (A - λI)X.

Så kallas linjär:
A er 0, 1, 2 => A - λI er 0, 1, 2, 3, 4, ...
alle ≠ 0 => det(A - λI) ≠ 0 => A ingen ber.