

Ebatzi sistema hauek:

a)

$$\left. \begin{array}{l} y + 2\lambda x = 0 \\ x + \lambda = 0 \\ x^2 + y - 6 = 0 \end{array} \right\}$$

b)

$$\left. \begin{array}{l} 1 + 2\lambda x = 0 \\ -2 - \lambda = 0 \\ y - x^2 = 0 \end{array} \right\}$$

c)

$$\left. \begin{array}{l} 2x - 2\lambda x = 0 \\ 2y + \lambda = 0 \\ y - x^2 + 1 = 0 \end{array} \right\}$$

d)

$$\left. \begin{array}{l} 2x = 0 \\ 2y + \lambda = 0 \\ y - 3 = 0 \end{array} \right\}$$

e)

$$\left. \begin{array}{l} y + \lambda = 0 \\ x + 2\lambda = 0 \\ x + y^2 - 1 = 0 \end{array} \right\}$$

f)

$$\left. \begin{array}{l} y + \lambda = 0 \\ x + \lambda = 0 \\ x + y - 1 = 0 \end{array} \right\}$$

g)

$$\left. \begin{array}{l} 1 + 2\lambda x = 0 \\ 1 + 2\lambda y = 0 \\ x^2 + y^2 - 1 = 0 \end{array} \right\}$$

h)

$$\left. \begin{array}{l} 1 + 2\lambda x = 0 \\ -2y + 2\lambda y = 0 \\ x^2 + y^2 - 9 = 0 \end{array} \right\}$$

i)

$$\left. \begin{array}{l} 2x - 6 = 0 \\ 2y - 4 + \lambda = 0 \\ y = 0 \end{array} \right\}$$

j)

$$\left. \begin{array}{l} 2x - 6 + \lambda = 0 \\ 2y - 4 - \lambda = 0 \\ x - y = 0 \end{array} \right\}$$

k)

$$\left. \begin{array}{l} y + \lambda = 0 \\ x = 0 \\ x = 0 \end{array} \right\}$$

l)

$$\left. \begin{array}{l} 1 + 2\lambda x = 0 \\ 1 - \lambda = 0 \\ x^2 - y = 0 \end{array} \right\}$$

m)

$$\left. \begin{array}{l} 2x + 2\lambda x = 0 \\ \frac{y}{2} + 2(y - 2)\lambda = 0 \\ x^2 + (y - 2)^2 - 4 = 0 \end{array} \right\}$$

n)

$$\left. \begin{array}{l} 2(x - 2) + \lambda = 0 \\ 2y - 2\lambda y = 0 \\ x - y^2 = 0 \end{array} \right\}$$

o)

$$\left. \begin{array}{l} 1 + \lambda = 0 \\ -2y = 0 \\ x - 1 = 0 \end{array} \right\}$$

p)

$$\left. \begin{array}{l} 2x - 6 + \lambda = 0 \\ 2y - 4 = 0 \\ x - 4 = 0 \end{array} \right\}$$

q)

$$\left. \begin{array}{l} y + 2\lambda x = 0 \\ x + 2\lambda y = 0 \\ x^2 + y^2 - 2 = 0 \end{array} \right\}$$

r)

$$\left. \begin{array}{l} 1 + 2\lambda x = 0 \\ 1 + 2\lambda y = 0 \\ x^2 + y^2 - 2 = 0 \end{array} \right\}$$

s)

$$\left. \begin{array}{l} 2xy^2 - 2\lambda x = 0 \\ 2x^2y + \lambda = 0 \\ y + 1 - x^2 = 0 \end{array} \right\}$$

t)

$$\left. \begin{array}{l} 1 - \lambda = 0 \\ \frac{1}{2}y + \lambda = 0 \\ y - x = 0 \end{array} \right\}$$

u)

$$\left. \begin{array}{l} 2x + 2\lambda x = 0 \\ 2\lambda y = 0 \\ x^2 + y^2 - 4 = 0 \end{array} \right\}$$

Soluzioak:

a) $[x=\sqrt{2}, y=4, \lambda=-\sqrt{2}], [x=-\sqrt{2}, y=4, \lambda=\sqrt{2}]$

b) $[x=(1/4), y=(1/(16)), \lambda=-2]$

c) $[x=0, y=-1, \lambda=2], [x=-(1/2)\sqrt{2}, y=-(1/2), \lambda=1], [x=(1/2)\sqrt{2}, y=-(1/2), \lambda=1]$

d) $[x=0, y=3, \lambda=-6]$

e) $[x=2\sqrt{2}-2, y=\sqrt{2}-1, \lambda=1-\sqrt{2}], [x=-2\sqrt{2}-2, y=-\sqrt{2}-1, \lambda=\sqrt{2}+1]$

f) $[x=(1/2), y=(1/2), \lambda=-(1/2)]$

g) $[x=(1/2)\sqrt{2}, y=(1/2)\sqrt{2}, \lambda=-(1/2)\sqrt{2}], [x=-(1/2)\sqrt{2}, y=-(1/2)\sqrt{2}, \lambda=(1/2)\sqrt{2}]$

h) $[x=-3, y=0, \lambda=(1/6)], [x=-(1/2), y=-(1/2)\sqrt{35}, \lambda=1], [x=-1/2, y=(1/2)\sqrt{35}, \lambda=1],$

$[x=3, y=0, \lambda=-(1/6)]$

i) $[x=3, y=0, \lambda=4]$

j) $[x=(5/2), y=(5/2), \lambda=1]$

k) $[x=0, y=-\lambda]$

l) $[x=-(1/2), y=(1/4), \lambda=1]$

m) $[x=-(4/3)\sqrt{2}, y=(8/3), \lambda=-1], [x=(4/3)\sqrt{2}, y=(8/3), \lambda=-1], [x=0, y=0, \lambda=0], [x=0, y=4, \lambda=-(1/2)]$

n) $[x=0, y=0, \lambda=4], [x=(3/2), y=-(1/2)\sqrt{6}, \lambda=1], [x=(3/2), y=(1/2)\sqrt{6}, \lambda=1]$

o) $[x=1, y=0, \lambda=-1]$

p) $[x=4, y=2, \lambda=-2]$

q) $[x=1, y=1, \lambda=-(1/2)], [x=-1, y=-1, \lambda=-(1/2)], [x=-1, y=1, \lambda=(1/2)], [x=1, y=-1, \lambda=(1/2)]$

r) $[x=1, y=1, \lambda=-(1/2)], [x=-1, y=-1, \lambda=(1/2)]$

s) $[x=-(1/3)\sqrt{3}, y=-(2/3), \lambda=(4/9)], [x=(1/3)\sqrt{3}, y=-(2/3), \lambda=(4/9)], [x=1, y=0, \lambda=0],$

$[x=-1, y=0, \lambda=0], [x=0, y=-1, \lambda=0]$

t) $[x=-2, y=-2, \lambda=1]$

u) $[x=2, y=0, \lambda=-1], [x=-2, y=0, \lambda=-1], [x=0, y=2, \lambda=0], [x=0, y=-2, \lambda=0]$