

Sistemas de Gauss

Departamento de Matemáticas

$$\begin{cases} x + y + z = 2 \\ 3x - 2y - z = 4 \\ -2x + y + 2z = 2 \end{cases}$$

S.C.D (1,-2,3)

$$\begin{cases} 3x - 4y + 2z = 1 \\ -2x - 3y + z = 2 \\ 5x - y + z = 5 \end{cases}$$

S.I.

$$\begin{cases} x + y + w = 6 \\ x + z - w = -3 \\ y + z + w = 4 \\ x - y + z = -2 \end{cases}$$

S.C.D. (1,2,-1,3)

$$\begin{cases} x - 2y = -3 \\ -2x + 3y + z = 4 \\ 2x + y - 5z = 4 \end{cases}$$

S.C.I. (1+2λ,2+λ,λ)

5)
$$\begin{cases} x + 3y - z = -5 \\ 2x - y + 5z = 7 \\ x + 10y - 8z = 9 \end{cases}$$

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6)
$$\begin{cases} x + 3y + 4z = 1 \\ 2x + 2y = 4 \\ 2x + 4y + 4z = 3 \end{cases}$$

S.C.I. (5+4λ.-1-4λ.2λ)

7)
$$\begin{cases} x + y + z = 6 \\ x - y - z = -4 \\ 3x + y + z = 8 \end{cases}$$

S.C.I. (1,5-λ,λ)

8)
$$\begin{cases} 4x - y + z = 4 \\ x - y + 4z = 1 \\ 2x + y - 7z = 3 \end{cases}$$

S.I.

$$\begin{cases} 4x - y + 5z = -25 \\ 7x + 5y - z = 17 \\ 3x - y + z = -21 \end{cases}$$

S.C.D. (-4.9.0)

$$\begin{cases} -x + 2y - 3z = -2 \\ -x + 8y - 27z = 0 \\ x - y - z = 1 \end{cases}$$

S.I.

S.C.I. $(1-\lambda,\lambda-1,\lambda)$

$$\begin{cases} x - 2y + 3z + 4w = -16 \\ 2x - y + z - w = 9 \end{cases}$$

$$x - y + 3z + 2w = -7$$
$$3x - y + 2z - 3w = 19$$

x + v - 3z + w = 0x - y + z + w = 213) x + 2y - 5z - w = -3x - 2v + 3z - 9w = -7

S.C.I. (λ,2-λ,λ,1)

$$\begin{cases} 2x - 5y + 3z = 0 \\ -x + y - z = 0 \\ 2x - y = 0 \end{cases}$$

S.C.D. (0,0,0)

15)
$$\begin{cases} 2x + 5y = 16 \\ x + 3y - 2z = -2 \\ x + z = 4 \end{cases}$$

S.C.D. (-2,4,6)

16)
$$\begin{cases} x - y + z = 0 \\ 2x - y - z = 5 \\ x + 2y + z = -3 \end{cases}$$

S.C.D (1,-1,-2)

17)
$$\begin{cases} x + 2y + z = 9 \\ x - y - z = -10 \\ 2x - y + z = 5 \end{cases}$$

S.C.D. (-1,1,8) 3x + 2y + z = 1

18)
$$\begin{cases} 5x + 3y + 3z = 2 \\ x + y - z = 1 \end{cases}$$

S.I.

$$\begin{cases} x + z = 4 \\ -x + 2y + z = 6 \\ y + z = -3 \end{cases}$$

S.I.

$$\begin{cases} x - y + 2z = -4 \\ 3x - 5y + 8z = -14 \\ x + 3y - 2z = 0 \end{cases}$$

S.C.I. (-3-λ,1+λ,λ)

21)
$$\begin{cases} x + 2y + z = 3 \\ 3x + 8y - 7z = -1 \\ x + 3y - 4z = -3 \end{cases}$$

S.I.

$$\begin{cases} x - 3y + 7z = 10 \\ 5x - y + z = 8 \\ x + 4y - 10z = -11 \end{cases}$$

S.C.I (1+2λ,-3+17λ,7λ)

23)
$$\begin{cases} x - 3y - 2z = 7 \\ 2x - y + 15z = 3 \\ x - 8y - 21z = 11 \end{cases}$$

S.I.

$$3x - 2y + z = 2$$

$$2x + 5y - 3z = 15$$

$$11x - y = 21$$

$$\begin{cases}
-x - 3y + 2z = 4 \\
2x + y - 3z = 0 \\
-3x + y + 6z = 2
\end{cases}$$

S.C.D. (5,-1,3)

26)
$$\begin{cases} 3x - 2y + 4z = 0 \\ -x + 5y - z = 0 \\ x + 8y + 2z = 0 \end{cases}$$

S.C.I. (18λ,-λ,13λ) 5x + 3y + 2z = -2

$$\begin{cases} x + y = 2 \\ 2x - y + z = 3 \end{cases}$$

S.C.D. (-13,19,3)

$$\begin{cases} 2x + 3y - 7z = -1\\ 3x + 4y - 6z = 5\\ 5x + 7y - 13z = 4 \end{cases}$$

S.C.I. (19-10λ,9λ-13,λ)

$$29 \begin{cases}
2x + 3y - 7z = -1 \\
3x + 4y - 6z = 5 \\
5x + 7y - 13z = 10
\end{cases}$$

S.I.

$$\begin{cases} x - 5y - 3z = 7 \\ 2x - y + z = 11 \\ 4x + 3y - 4z = 3 \end{cases}$$

$$\int x - 3y + 6z = 21$$

31)
$$\begin{cases} 3x + 2y - 5z = -30 \\ 2x - 5y + 2z = -6 \end{cases}$$

S.C.D. (-3,2,5)

32)
$$\begin{cases} x - 6y - 2z = -8 \\ -x + 5y + 3z = 2 \\ 3x - 2y - 4z = 18 \end{cases}$$

S.C.D. (4,3,-3) 3x - 2y + z = 9

33)
$$\begin{cases} x - 2y + z = 5 \\ x + 2y - 2z = -5 \end{cases}$$

$$\begin{cases} x + y - 4z = -2 \\ \text{S.C.D.} & (1,3,0) \end{cases}$$

$$\begin{cases} x + 2y + 3z = 17 \\ -4x + 2y - z = -4 \end{cases} \begin{cases} -x - y + 3z = 0 \\ x - 3 = y + 1 \end{cases}$$

$$3x - 6y - 8z = -67$$

S.C.D.(-85/19,-105/19,206/19)

35)
$$\begin{cases} 4x + 3y - 2z = 8 \\ 4x + 3y + 2z = 24 \\ 4x + 3y + z = -20 \end{cases}$$

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36)
$$\begin{cases} -x + y - z = -2 \\ x - y + 2z = 4 \\ x + z + t = 3 \\ x + 2z + t = 1 \end{cases}$$

S.I.

37)
$$\begin{cases} 2x - 2y - z = 7 \\ 4x - 4y + 2z = 17 \\ 3x + 2y - 6z = -2 \end{cases}$$

S.C.D. (41/20,-73/40,3/4)

38)
$$\begin{cases} x + y + z = 515 \\ x + 3y - 4z = 0 \\ -9x + 8y = 0 \end{cases}$$

S.C.D. (160, 180, 175)

$$\int 6x + 3y - 2z = 2$$

39)
$$\begin{cases} -7x + 5y + 3z = 22 \\ x + 2y - 5z = -24 \end{cases}$$

S.C.D. (69/6,146/61,365/61)

40)
$$\begin{cases} 3x + 5y - 7z = -1 \\ -2x + 7y - 3z = -2 \\ x - y - z = -1 \end{cases}$$

S.C.D. (12/5,13/10,21/10)

$$\begin{cases} 5x + 3y - 2z = 0 \\ 9x + 3y + 10z = 0 \end{cases}$$

7x - 9v + 3z = 0S.C.D. (0,0,0)

$$\int -3x + y - z = -4$$

42)
$$\begin{cases} 5x - 2y + z = 6 \\ -x + y + 3z = 0 \end{cases}$$

S.C.D. (2,2,0)

43)
$$\begin{cases} 4x + y - 2z = -3 \\ 3x - y + 4z = -2 \\ -x + y + z = 5 \end{cases}$$

S.C.D. (-1,3,1)

$$\int x + y + z = 110$$

$$\begin{cases} 4x + 5y + 6z = 540 \\ 12x - 10y - 10z = 0 \end{cases}$$

S.C.D. (50,20,40)

$$\int 2x + y + 2z = 150$$

44)
$$\begin{cases} 2x + 4y + 4z = 350 \\ 6x + 5y + 4z = 500 \end{cases}$$

S.C.D. (25,50,25)

$$\int -x - y + 3z = 0$$

$$\begin{cases} x - 3 = y + 1 \end{cases}$$

$$y+1=z+2$$

S.C.D. (11,7,6)

$$\int x - y - z = 6$$

47)
$$\begin{cases} -x + 3y - z = 12 \\ -x - y + 7z = 24 \end{cases}$$

S.C.D. (34,16,12)

$$\int x + 2y + z = 4$$

48)
$$\begin{cases} 2x - 3y + 4z = 6 \\ 3x - y + 5z = 1 \end{cases}$$

$$2x - 3y + 4z = -3$$