

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

$$x = \frac{10 - 2y}{3} = -\frac{2}{3}y + \frac{10}{3} \rightarrow -\frac{2}{3}x + \frac{10}{3}$$

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

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

$$\begin{cases} 3x + 2y = 10 \\ -5y = -10 \end{cases} \quad x = \quad \rightarrow \quad 0x - 5y = -10 \Rightarrow y = \textcircled{2}$$

$$\begin{cases} ax + by = q \\ cx + dy = p \end{cases} \quad \left(\begin{array}{cc|c} a & b & q \\ c & d & p \end{array} \right)$$

$$\begin{cases} x = -\frac{b}{a}y + \frac{q}{a} \\ c\left(-\frac{b}{a}y + \frac{q}{a}\right) + dy = p \end{cases} \quad \det \begin{pmatrix} a & b \\ p & d \end{pmatrix}$$

$$\begin{cases} x = -\frac{b}{a}y + \frac{q}{a} \\ y(ad - bc) = +ap - cq \end{cases} \rightarrow \det \begin{pmatrix} a & q \\ c & p \end{pmatrix}$$

$$\begin{cases} 3y = 12 \\ x + 4y = 20 \end{cases}$$

$$0x + 3y = 12$$

$$x = \frac{-3y + 12}{0}$$

$$\det \begin{pmatrix} a & b \\ c & d \end{pmatrix} = 0 \Leftrightarrow \underline{a:b = c:d}$$

$$\begin{cases} ax + by + cz = q_1 \\ dx + ey + fz = q_2 \\ gx + hy + iz = q_3 \end{cases}$$

a, b, c, d
proporzionali

$$\det \begin{pmatrix} a & b & c \\ d & e & f \\ g & h & i \end{pmatrix} \begin{cases} = 0 \\ \neq 0 \end{cases}$$

sistema "complicato"
una e una sola
soluzione.

$$\begin{cases} x + 2y - z = 10 \\ 2x + y + 3z = 20 \end{cases}$$

"complicato"

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

quando

esiste una relazione del tipo

$$a(1, 2, -1) + b(2, 1, 3) = (3, 3, 2)$$

$$\text{sist. risolubile} \Leftrightarrow aq_1 + bq_2 = q_3$$

$$7 + 4 \times (5 - 2 \times (2 - 6)) + 2 \times 4$$

$$\begin{array}{ccccccc} 7 & + & 4 \times & & & & \\ & & \downarrow & & 13 & & \uparrow + 2 \times 4 \\ & & & 5 - 2 \times & & & \\ & & & \downarrow & (-4) & & \\ & & & & \uparrow & & \\ & & & & & (2 - 6) & \end{array}$$

