

- 6^{1/2} [Foglio ~
- 1) Disposizioni 2/3
 - 2) Sistemi di equazioni (Metodo de Cramer) ⁴
 - 3) Sistemi di equazioni Come vi pare
 - 4) Problemini / 2
 - 5) quesiti 3 \rightarrow Geometria
- + Spicy

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$$\begin{cases} (a-1)x + y = 1 \\ (a+2)y - 2x - 1 = 0 \end{cases} \quad \leadsto \quad \begin{cases} (a-1)x + y = 1 \\ -2x + (a+2)y = 1 \end{cases}$$

$$\text{Det}(D) = (a-1)(a+2) - 1(-2) = a^2 - a + 2a - 2 + 2 = a^2 + a = a(a+1)$$

$$\text{Det}(D_x) = 1(a+2) - 1 \cdot 1 = a+2-1 = a+1$$

$$\text{Det}(D_y) = (a-1) \cdot 1 - 1(-2) = a-1+2 = a+1$$

$$x = \frac{\text{Det}(D_x)}{\text{Det}(D)}$$

$$y = \frac{\text{Det}(D_y)}{\text{Det}(D)}$$

Vanno bene solo se $\text{Det}(D) \neq 0$
cioè $a(a+1) \neq 0$ cioè $a \neq 0$
 $a \neq -1$

Se $a \neq 0, -1$

$$\begin{cases} x = \frac{a+1}{a(a+1)} = \frac{1}{a} \\ y = \frac{a+1}{a(a+1)} = \frac{1}{a} \end{cases} \quad \left. \vphantom{\begin{matrix} x \\ y \end{matrix}} \right\} \text{Determinato}$$

Caso $a=0$: $\begin{cases} -x + y = 1 \\ -2x + 2y = 1 \end{cases} \quad \leadsto \quad \begin{cases} -2x + 2y = 2 \\ -2x + 2y = 1 \end{cases}$

Impossibile

Caso $a=-1$ $\begin{cases} -2x + y = 1 \\ -2x + y = 1 \end{cases}$ Indeterminato

$$\begin{cases} 3x + 15y - 15z + 25 = 0 \\ 12x - 12 = 2y - 15z \\ 9x + 2y + 12z = 6 \end{cases}$$

$$\begin{cases} 3x + 15y - 15z = -25 \\ 12x - 2y + 15z = 12 \\ 9x + 2y + 12z = 6 \end{cases}$$

$$\begin{cases} 6x + 15(2y) - 30z = -50 \\ 12x - 6 + 9x + 12z + 15z = 12 \\ 2y = 6 - 9x - 12z \end{cases}$$

$$\begin{cases} 21x + 27z = 18 \\ -129x - 210z = -140 \end{cases}$$

$$\begin{cases} 7x + 9z = 6 \rightarrow z = \frac{6-7x}{9} \\ 129x + 210z = 140 \end{cases}$$

$$129x + \frac{70}{3}(6-7x) = 140$$

$$(129 \cdot 3 - 490)x = \underline{140 \cdot 3 - 6 \cdot 70} \Rightarrow -103x = 0$$

$$\Rightarrow x = 0$$

BRUTTA