

$$\frac{1}{x} + 1 = \frac{4}{x+1}$$

$$\text{C.E. } x \neq -1 \wedge x \neq 0$$

$$\frac{1}{x} + 1 - \frac{4}{x+1} = 0$$

$$\text{D. } \frac{x+1+x(x+1)-4x}{x(x+1)} = 0 \cdot \text{D}$$

$$x+1+x^2+x-4x=0$$

$$x^2 - 2x + 1 = 0$$

$$(x-1)^2 = 0 \quad x=1 \text{ LOPPIA}$$

$$S = \left\{ 1 \text{ (doppia)} \right\}$$

(è accettabile perché diversa dalle C.E.)

$$\frac{3x+1}{x} + \frac{2}{x+1} = \frac{4}{x^2+x}$$

$$\text{C.E.}$$

$$x \neq 0 \wedge x \neq -1$$

$$\frac{3x+1}{x} + \frac{2}{x+1} - \frac{4}{x(x+1)} = 0$$

$$\text{D. } \frac{(3x+1)(x+1)+2x-4}{x(x+1)} = 0 \cdot \text{D}$$

$$3x^2 + 3x + x + 1 + 2x - 4 = 0$$

$$3x^2 + 6x - 3 = 0$$

$$x^2 + 2x - 1 = 0$$

$$x_{1,2} = \frac{-2 \pm \sqrt{4+4}}{2} = \frac{-2 \pm \sqrt{8}}{2} = \frac{-2 \pm 2\sqrt{2}}{2} = \begin{cases} \frac{-1 + \sqrt{2}}{2} \\ \frac{-1 - \sqrt{2}}{2} \end{cases}$$

$$S = \left\{ -1 - \sqrt{2}, -1 + \sqrt{2} \right\}$$

approssimando $S \{ \approx -2,41; \approx 0,41 \}$

$$\frac{x+3}{x^2-2x+1} = \frac{x-2}{x-1} + \frac{4}{(x-1)^2} \quad \text{C.E.}$$

$$\frac{x+3}{(x-1)^2} = \frac{x-2}{x-1} + \frac{4}{(x-1)^2} \quad x \neq 1$$

$$\frac{x+3}{(x-1)^2} - \frac{x-2}{x-1} - \frac{4}{(x-1)^2} = 0$$

$$\frac{x+3 - (x-2)(x-1) - 4}{(x-1)^2} = 0 \cdot D$$

$$x+3 - (x^2 - x - 2x + 2) - 4 = 0$$

$$x+3 - x^2 + x + 2x - 2 - 4 = 0$$

$$x - x^2 + x + 2x = -3 + 2 + 4$$

$$-x^2 + 4x - 3 = 0$$

$$x^2 - 4x + 3 = 0$$

$$x^2 - 3x - 1x + 3 = 0$$

$$x(x-3) - 1(x-3) = 0$$

$$(x-1)(x-3) = 0$$

$$x-1=0 \vee x-3=0$$

$x=1$ NON
ACCETTABILE

perché escluso dalla C.E.

$$S = \{3\}$$