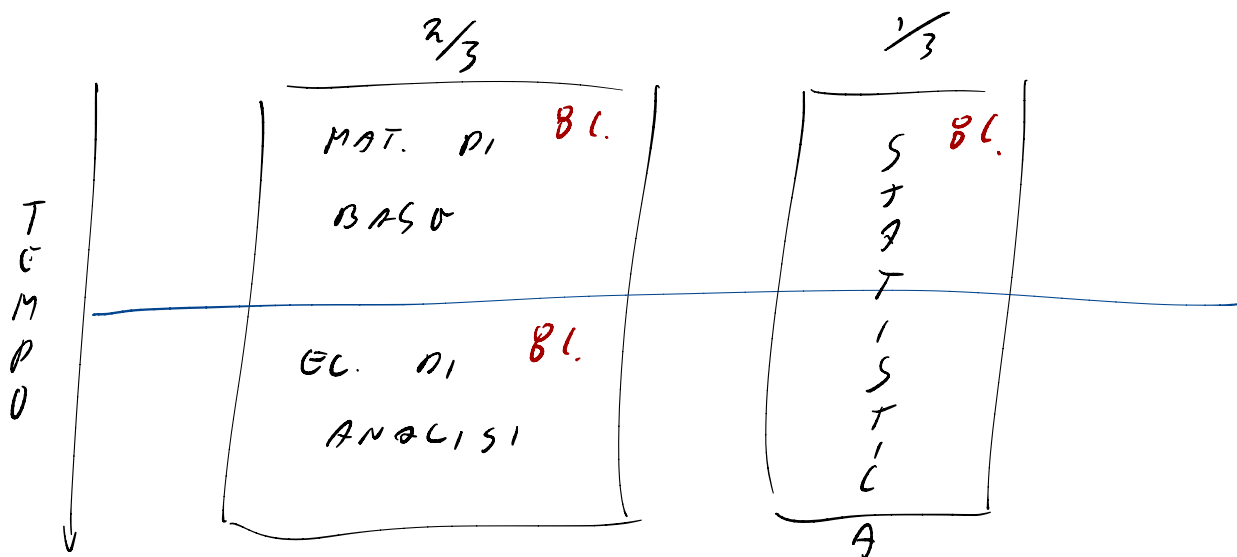




Questa cosa è un numero?

REGOLE x è un numero se

- ha senso confrontare x con altri numeri
- ha senso dire x cm, x kg, x N, etc.
- x rappresenta una quantità limitata e definita esattamente

27 ✓

~~XXVII~~ ✓

$2.70 \cdot 10^1$ ✓

$$27 = 2.70 \cdot 10^1$$

$$\square = \Phi$$

" $\square$ e Φ sono LA STESSA COSA"

$$x^2 + 3x = 10$$

$$x = \frac{-3 \pm \sqrt{49}}{2} = \frac{-3 \pm 7}{2} = \begin{cases} 2 \\ -5 \end{cases}$$

$$\sqrt{12} \quad \checkmark$$

$$\frac{1 \pm \sqrt{12}}{2} \quad \times$$

$$\underline{050} \ 2212175 \quad \times$$

$$8 \cdot 2 = 16 \quad \times$$

$$2.54 \text{ cm} = 1 \text{ in}$$

$$x \text{ tale che } 2x = x - 4 \quad \checkmark$$

$$x \text{ tale che } \frac{1}{x+2} = \frac{1}{x-2}$$

Risolti:

$$(x+1)^4$$

$$= (x^2+1)^2 + 4(x-1)^3 + 12x$$

$$\left((x+1)^2\right)^2 = (x^2+2x+1)^2$$

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

$$= \cancel{x^4} + \cancel{4x^3} + 6x^2 + \cancel{4x} + \cancel{1} \quad *$$

$$\bullet \quad \cancel{x^4} + \cancel{2x^2} + \cancel{1} + \cancel{4x^3} - \cancel{12x^2} + \cancel{12x} - \cancel{4} + \cancel{12x}$$

$$6x^2 + 4x$$

$$= -10x^2 + 24x - 4$$

$$16x^2 - 10x + 4 = 0$$

$$4x^2 - 5x + 1 = 0$$

$$(4x-1)(x-1)$$

$$x = \begin{cases} 1 \\ \frac{1}{4} \end{cases}$$

$$4 - x < \frac{4}{x}$$

$$4 - x - \frac{4}{x} < 0$$

$$4 - x = \frac{4}{x}$$

$$\frac{4x - x^2 - 4}{x} < 0$$

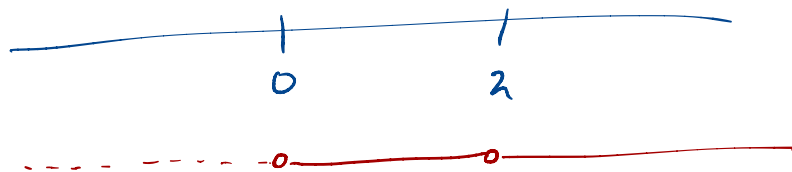
$$4x - x^2 = 4$$

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

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

$$x = 2$$

$$0 \quad 2$$



$$0 < x < 2 \quad \vee \quad 2 < x$$

$$0 < x \quad \wedge \quad x \neq 2$$

$$x \in]0, 2[\vee]2, +\infty[$$

$$4 - x < \frac{4}{x}$$

