Potenze di 10

$10^n \qquad n \in \mathbb{Z}$

$10^2 = 10 \cdot 10$

$10^{-1} = \left(\frac{10}{1}\right)^{-1} = \left(\frac{1}{10}\right)^1 = \frac{1}{10}$

$10^{-2} = \frac{1}{10^2} = \frac{1}{100}$

$10^{-3} = \frac{1}{10^3} = \frac{1}{1000}$

$10^2 \times 10^3 = 10^5$

$10^4 \times 10^{-2} = 10^{4+(-2)} = 10^2$

$$10^{-2} \times 10^{-3} = 10^{-2+(-3)} = 10^{-5}$$

$$10^{3} : 10^{-4} = 10^{3-(-4)} = 10^{7}$$

Es. p. 27 n. 57

$$\frac{12 \times 10^{8}}{4 \times 10^{3}} + (0{,}5 \times 10^{3})^{2} - (6 \times 10^{11}) \times (9 \times 10^{-6}) =$$

$$= 3 \times 10^{5} + \left(\frac{5}{\cancel{10}} \times 10^{\cancel{3}\,2}\right)^{2} - 54 \times 10^{5} =$$

$$= 3 \times 10^{5} + 25 \times 10^{4} - 54 \times 10^{5} =$$

$$= 30 \times 10^{4} + 25 \times 10^{4} - 540 \times 10^{4} =$$

$$= -485 \times 10^{4} = -4{,}85 \times 10^{6}$$

$$25 \times 10^4 = 250 \times 10^3$$

$\longrightarrow$ dim.

$$25 \times 10^4 = 2{,}5 \times 10^5$$

$\longleftarrow$ aum.

Equazioni

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

$$2x + 2 + 3x - 6 = 12x - 4$$

$$2x + 3x - 12x = -\cancel{2} + \cancel{6} - \cancel{4}$$

$$-7x = 0$$

$$x = \frac{0}{-7} \qquad x = 0$$

$0x = -7$ impossi.

$0x = 0$ indet.

A

cd

6 cm

K ~~OmG~~ ~~OK~~

A ampere unità

Ampere fisico

7,3 A

10^3 Kilo

10^2 etto

10^1 deca

10^0

$\frac{1}{10} = 10^{-1}$ deci

10^{-2} centi

10^{-3} milli

10^{-6} micro

10^{-9} nano