Formulario

Segni prodotto

$$+2 \times +3 = +6$$
$$-2 \times -3 = +6$$
$$+2 \times -3 = -6$$
$$-2 \times +3 = -6$$

Segni somma

$$+2 + 3 = +5$$
$$-2 - 3 = -5$$
$$-2 + 3 = +1$$
$$+2 - 3 = -1$$

Frazioni

$$\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{a}{b}\frac{d}{c}$$
$$\frac{1}{\frac{a}{b}} = \frac{b}{a}$$

Prodotti

$$a(b+c) = ab + ac$$
$$(a+b)(c+d) = ac + ad + bc + bd$$
$$(a+b)^2 = a^2 + b^2 + 2ab$$
$$(a+b)^2 = (a+b)(a+b)$$
$$(a-b)^2 = a^2 + b^2 - 2ab$$
$$(a-b)^2 = (a-b)(a-b)$$
$$(a-b)(a+b) = a^2 - b^2$$

Potenze

$$a^0 = 1$$
$$0^0 = ?$$
$$a^n \cdot a^m = a^{n+m}$$
$$a^{n+m} = a^n \cdot a^m$$
$$a^n \cdot b^n = (ab)^n$$
$$(ab)^n = a^n \cdot b^n$$
$$(a^n)^m = a^{nm}$$
$$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^m}$$
$$\frac{a^n}{b^m} = \left(\frac{a}{b}\right)^n$$
$$a^{-n} = \frac{1}{a^n}$$

Equazioni primo grado

$$ax + b = 0$$
$$ax = -b$$
$$x = -\frac{b}{a}$$

Equazioni secondo grado

Completa

$$ax^2 + bx + c = 0$$
$$x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$
$$\Delta = b^2 - 4ac$$

Spuria

$$ax^2 + bx = 0$$
$$x(ax + b) = 0$$
$$x = 0$$
$$ax + b = 0$$
$$ax = -b$$
$$x = -\frac{b}{a}$$

Pura

$$ax^2 + c = 0$$
$$ax^2 = -c$$
$$x = \pm\sqrt{-\frac{c}{a}}$$