

# 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

$$a(b+c) = ab+ac$$

$$(a+b)(c+d) = ac+ad+bc+bd$$

$$(a+b)^2 = a^2+b^2+2ab$$

$$(a-b)^2 = a^2+b^2-2ab$$

$$(a-b)(a+b) = a^2-b^2$$

## Potenze

$$a^0 = 1$$

$$0^0 = ?$$

$$a^n \cdot a^m = a^{n+m}$$

$$a^{n+m} = a^n \cdot a^m$$

$$a^n \cdot b^n = (ab)^n$$

$$(ab)^n = a^n \cdot b^n$$

$$(a^n)^m = a^{nm}$$

$$\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$$

$$\frac{a^n}{b^m} = \left(\frac{a}{b}\right)^n \frac{1}{b^{m-n}}$$

$$a^{-n} = \frac{1}{a^n}$$

## 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

$$ax^2+c=0$$

$$ax^2=-c$$

$$x = \pm \sqrt{-\frac{c}{a}}$$