

**Trinomul patrat**

Ecuatia patrata  $ax^2 + bx + c = 0$ ,  $a \neq 0$  are

a) doua solutii distincte, daca  $\Delta = b^2 - 4ac > 0$

$$x_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a};$$

b) doua radacini egale, daca  $\Delta = 0$ ,  $x_1 = x_2 = -\frac{b}{2a}$ ;

c) nu are solutii, daca  $\Delta < 0$ .

**Cazuri particulare**

1.  $ax^2 + 2kx + c = 0$ ,  $a \neq 0$

$$x_{1,2} = \frac{-k \pm \sqrt{k^2 - ac}}{a} \quad (k^2 - ac \geq 0).$$

2.  $x^2 + px + q = 0$

$$x_{1,2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q} \quad (p^2 \geq 4q).$$