Second degré

- $x^2 - 7x + 6 = 0$

$\Leftrightarrow x_1 = 1$ et $x_2 = 6$

- $-3x^2 + 2x + 5 = 0$

$\Leftrightarrow x_1 = -1$ et $x_2 = \frac{5}{3}$.

. $x^2 + 3x - 10 = 0$

$\Delta > 0$, donc $x_1 = -5$ et $x_2 = 2$.

. $x^2 - x\sqrt{2} - 4 = 0$

$\Delta = (-\sqrt{2})^2 - 4 \times 1 \times -4$

$= 2 + 16$

$= 18 > 0$

$$x_1 = \frac{\sqrt{2} - \sqrt{18}}{2} = \frac{\sqrt{2} - 3\sqrt{2}}{2}$$

$$= -\frac{2\sqrt{2}}{2} = -\sqrt{2}$$

$$x_2 = \frac{-b + \sqrt{\Delta}}{2a}$$

$$= \frac{\sqrt{2} + \sqrt{8}}{2}$$

$$= \frac{\sqrt{2} + 3\sqrt{2}}{2}$$

$$= \frac{4\sqrt{2}}{2}$$

$$= 2\sqrt{2}$$

- $x^2 + x - 6 = 0$

$\Delta = 25 > 0$

$x_1 = -3$ et $x_2 = 2$

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

$\Delta = 9 > 0$

$x_1 = -4$ $\quad$ $x_2 = -1$

$$2x^2 + x\sqrt{5} - 15 = 0$$

$$\sqrt{125} = \sqrt{25 \times 5}$$

$$= \sqrt{25} \times \sqrt{5}$$

$$= 5\sqrt{5}.$$

$$x_1 = -\frac{3\sqrt{5}}{2}$$

$$x_2 = \sqrt{5}$$

• $x^2 - 8x + 15 = 0$

$\triangle = 64 - 4 \times 15$

$= 64 - 60$

$= 4 > 0$