Trigonometrie Aufgabe 235

$2 \cos^2 x + \cos x - 1 = 0$

A, B, C – Formel:

A = 2, B = 1, C = -1

$$\cos x_{1,2} = \frac{-1 \pm \sqrt{1^2 - 4 * 2 * (-1)}}{2 * 2}$$

$$\cos x_{1,2} = \frac{-1 \pm \sqrt{1 + 8}}{4}$$

$$\cos x_{1,2} = \frac{-1 \pm \sqrt{9}}{4} = \frac{-1 \pm 3}{4}$$

$$\cos x_1 = \frac{-1 + 3}{4} = 0{,}5 \longrightarrow x_1 = 60° \text{ oder } 300°$$

$$\cos x_2 = \frac{-1 - 3}{4} = -1 \longrightarrow x_2 = 180°$$

Lösungsmenge **L = {60°, 180°}**