

## Löse die folgenden biquadratischen Gleichungen $ax^4 + bx^2 + c = 0$

$$\begin{aligned} -6.5x^4 - 26x^2 &= 0 \\ x_1 &= 0 \quad x_2 = 0 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -7x^4 - 42x^2 + 189 &= 0 \\ x_1 &= 1.73 \quad x_2 = -1.73 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -1.5x^4 + 19.5x^2 - 60 &= 0 \\ x_1 &= 2.83 \quad x_2 = -2.83 \\ x_3 &= 2.24 \quad x_4 = -2.24 \end{aligned}$$

$$\begin{aligned} -0.5x^4 - 9.5x^2 - 45 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} 6x^4 - 18x^2 - 420 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 3.16 \quad x_4 = -3.16 \end{aligned}$$

$$\begin{aligned} -4.5x^4 - 22.5x^2 + 63 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 1.41 \quad x_4 = -1.41 \end{aligned}$$

$$\begin{aligned} 6x^4 + 36x^2 - 42 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 1 \quad x_4 = -1 \end{aligned}$$

$$\begin{aligned} 2x^4 + 20x^2 &= 0 \\ x_1 &= 0 \quad x_2 = 0 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} 2x^4 - 4x^2 - 70 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 2.65 \quad x_4 = -2.65 \end{aligned}$$

$$\begin{aligned} -0.5x^4 - 5.5x^2 - 15 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -8x^4 - 80x^2 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 0 \quad x_4 = 0 \end{aligned}$$

$$\begin{aligned} 3.5x^4 - 24.5x^2 - 63 &= 0 \\ x_1 &= 3 \quad x_2 = -3 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -5.5x^4 + 93.5x^2 - 396 &= 0 \\ x_1 &= 2.83 \quad x_2 = -2.83 \\ x_3 &= 3 \quad x_4 = -3 \end{aligned}$$

$$\begin{aligned} 8x^4 - 32 &= 0 \\ x_1 &= 1.41 \quad x_2 = -1.41 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} 9.5x^4 + 114x^2 + 304 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} 7.5x^4 + 15x^2 - 262.5 &= 0 \\ x_1 &= 2.24 \quad x_2 = -2.24 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -0.5x^4 + 6.5x^2 - 21 &= 0 \\ x_1 &= 2.65 \quad x_2 = -2.65 \\ x_3 &= 2.45 \quad x_4 = -2.45 \end{aligned}$$

$$\begin{aligned} -10x^4 + 70x^2 + 180 &= 0 \\ x_1 &= 3 \quad x_2 = -3 \\ x_3 &= \diamond \quad x_4 = \diamond \end{aligned}$$

$$\begin{aligned} -3.5x^4 + 38.5x^2 - 105 &= 0 \\ x_1 &= 2.24 \quad x_2 = -2.24 \\ x_3 &= 2.45 \quad x_4 = -2.45 \end{aligned}$$

$$\begin{aligned} 7x^4 - 49x^2 - 126 &= 0 \\ x_1 &= \diamond \quad x_2 = \diamond \\ x_3 &= 3 \quad x_4 = -3 \end{aligned}$$