

Exponenciális egyenletek

$$1.) \quad 4^x + 2^{x+1} = 8 \quad x = 1$$

$$2.) \quad 3^{x+2} + 9^{x+1} = 810 \quad x = 2$$

$$3.) \quad 7^{2x} - 6 \cdot 7^x + 5 = 0 \quad x_1 = 0 \quad x_2 = \log 5$$

$$4.) \quad 4^x - 9 \cdot 2^x + 8 = 0 \quad x_1 = 0 \quad x_2 = 3$$

$$5.) \quad 3^{x+1} + \frac{18}{3^x} = 29 \quad x_1 = 2 \quad x_2 = -0,37$$

$$6.) \quad 2^{2+x} - 2^{2-x} = 15 \quad x = 2$$

$$7.) \quad 5^{2x-1} + 5^{x+1} = 250 \quad x = 2$$

$$8.) \quad 4 \cdot 5^{2x} - 3 \cdot 5^{x+1} - 25 = 0 \quad x = 1$$

$$9.) \quad 10^x - 10^{-x} = \frac{8}{3} \quad x = 0,477$$

$$10.) \quad 9^{x-1} + 3^{x+2} = 90 \quad x = 2$$

$$11.) \quad 5^{2x} + 25 = 5^{x+2} + 5^x \quad x_1 = 0 \quad x_2 = 2$$

$$12.) \quad 49^x + 7 = 8 \cdot 7^x \quad x_1 = 0 \quad x_2 = 1$$

$$13.) \quad 4^{x+1} - 2^x = 2^{x+4} - 18 \quad x_1 = 1 \quad x_2 = 1,17$$

$$14.) \quad 9^x - 6 \cdot 3^x = 27 \quad x = 2$$

$$15.) \quad 2^x - 0,5^x = 3,75 \quad x = 2$$

$$16.) \quad 10 \cdot 2^x - 4^x = 16 \quad x_1 = 1 \quad x_2 = 3$$

$$17.) \quad 4^{2x+1} = 65 \cdot 4^{x-1} - 1 \quad x_1 = -2 \quad x_2 = 1$$

$$18.) \quad 9^{x+1} - 4 \cdot 3^x - 69 = 0 \quad x = 1$$

$$19.) \quad 2 \cdot 3^{x+1} - 6 \cdot 3^{x-1} - 3^x = 9 \quad x = 1$$

$$20.) \quad 5 \cdot 2^x + 2 \cdot 2^{x+1} - 2^{x+3} = 8 \quad x = 3$$