

Vyřešte v $\mathbb{R}$ rovnici, proveďte zkoušku

1. $\ln(3 - x + x^2) = \ln(3 - x) + \ln(x + 1)$
2. $\ln \sqrt{4 - x} + \ln \sqrt{4 + x} = \ln x$
3. $3 \ln(x + 1) - \ln(13 + x) = 2 \ln(x - 1)$
4. $2 \ln(x + 8) - \ln(2x) = \ln(x + 2)$
5. $\ln(1 + x) + \ln(12 - x) = \ln(x + 3) + \ln(4 - x)$
6. $3 \ln x - \ln(6 + x) = 2 \ln(3 - x)$
7. $\ln(x + 2) + \ln(x - 7) = 2 \ln(x - 4)$
8. $\log_6(x - 1) + \log_6(x - 3) = 2 - \log_6 12$
9. $\ln(3 - x + x^2) = \ln(3 - x) - \ln(x + 1)$
10. $\log(x + 5) - \log(x - 1) = 1 - \log 2$
11. $\log_3(x + 5) - \log_3(x - 1) = 1 - \log_3 2$
12. $\frac{1 + \log(x^2 + x - 2)}{2} = \log(2 + x)$
13. $\frac{1}{2} \ln(3 - x + x^2) = \ln(x + 5)$
14. $\frac{2 - \ln x}{1 - \ln^2 x} = 2$
15. $2 \ln(x + 3) - \ln(x + 1) = \ln(11 - x)$
16. $\ln(x + 3) - \ln(x - 2) = \ln(9 - x)$
17. $\ln(1 + x) - \ln(1 - x) = \ln(x + 3) - \ln(4 - x)$
18. $\ln \sqrt{2 - x} + \ln \sqrt{2x - 1} = \ln x$
19. $\frac{1 + \ln x}{2 + \ln x} = 5 + \ln x$
20. $-\ln \sqrt{4 - x} + \ln \sqrt{4 + x} = \ln 12 - \ln 4$
21. $\frac{1 - \ln x}{2 + \ln x} = -2 \ln x$
22. $\frac{5 + \log x}{3 - \log x} = 3$
23. $\frac{1 + \log_5(x^2 + x - 2)}{2} = \log_5(2 + x)$
24. $3 \ln(x + 1) - \ln(13 + x) = 2 \ln(1 - x)$
25. $\ln(x - 2) + \ln(1 + x) = 2 \ln(3 - x)$

Vyřešte v $\mathbb{R}$ rovnici, proveďte zkoušku

1.

$$x_1 = 0, x_2 = \frac{3}{2},$$

2.

$$x = 2\sqrt{2},$$

3.

$$x = 3,$$

4.

$$x = 16,$$

5.

$$x = 0,$$

6.

$$x = 2,$$

7.

$$x = 10,$$

8.

$$x = 4,$$

9.

$$x_1 = 0,$$

10.

$$x = \frac{5}{2},$$

11.

$$x = 13,$$

12.

$$x_1 = \frac{4}{3},$$

13.

$$x_1 = -2,$$

14.

$$x_1 = 1, x_2 = \sqrt{e},$$

15.

$$x_1 = 1 - \sqrt{2}, x_2 = 1 + \sqrt{2},$$

16.

$$x_1 = 3, x_2 = 7,$$

17.

$$x = -\frac{1}{5},$$

18.

$$x = 1, x = \frac{2}{3},$$

19.

$$x = e^{-3},$$

20.

$$x = \frac{16}{5},$$

21.

$$x_1 = e^{-1}, x_2 = e^{-\frac{1}{2}},$$

22.

$$x = 10,$$

23.

$$x_1 = \frac{7}{4},$$

24.

$$x = \frac{1}{2},$$

25.

$$x = \frac{11}{5},$$