

Lineárne rovnice s parametrom

V úlohách 1 - 35 riešte v \mathbb{R} rovnice vzhľadom na parametre $a, b, m, n \in \mathbb{R}$

$$1. \frac{2-a}{a} = \frac{2}{x-1}$$

$$2. \frac{x-a}{x+1} = a$$

$$3. 6(2+x) = ax$$

$$4. \frac{x-1}{x} = \frac{2-a}{3a}$$

$$5. \frac{a+x}{3} - 2 = \frac{x-3}{a}$$

$$6. 1 + \frac{a^2-1}{x} = a$$

$$7. a(2x+1) = 4(x+3)$$

$$8. a(x-2) = 3(x+4)$$

$$9. (x+2) \cdot (a-1) = 3ax$$

$$10. \frac{2}{x-1} = 4-a$$

$$11. \frac{a(x+2) - 3(x-1)}{x+1} = 1$$

$$12. \frac{x}{5} - \frac{1-3x}{a+2} = 1$$

$$13. \frac{5x-2}{a-3} - \frac{2}{3}x = 4$$

$$14. \frac{5}{2x-a} = \frac{3}{4-ax}$$

$$15. \frac{2-a}{a} = \frac{2}{x-1} + 3a$$

$$16. b^2x + 2 = b(x+2)$$

$$17. \frac{b}{x} - 1 = \frac{4}{bx} - \frac{2}{b}$$

$$18. \frac{x+b}{2} - \frac{x-b}{2} = \frac{2}{x+b}$$

$$19. \frac{b^2(x-1)}{bx-2} = 2$$

$$20. \frac{2x+b^2}{b+3} + \frac{2x-b^2}{b-3} = \frac{(b^2+4)x}{b^2-9}$$

$$21. bx - \frac{2}{b^2} = \frac{1}{b}(4x+1)$$

$$22. \frac{b(x+2) - 3(x-1)}{x+1} = 0$$

$$23. \frac{x}{5} - 1 = \frac{1-3x}{b+2}$$

$$24. \frac{5}{x-b} = \frac{3}{4-bx}$$

$$25. 4 + \frac{2x}{3} = \frac{5x - 2}{b - 3}$$

$$26. \frac{x}{x - b} - \frac{2b}{x + b} = \frac{8b^2}{x^2 - b^2}$$

$$27. \frac{bx^2}{x - 1} - 2b = b^2 + 1$$

$$28. 1 + \frac{b^2 - 1}{x} = b - 1$$

$$29. \frac{x^2 + 1}{b^2x - 2b} + \frac{1}{bx - 2} = \frac{x}{b}$$

$$30. \sqrt{b + x} = b - \sqrt{x}$$

$$31. \sqrt{x + b} + \sqrt{x - b} = \sqrt{2x}$$

$$32. x - 3m = nx + 6$$

$$33. \frac{x}{m} - \frac{x}{n} = 2$$

$$34. (x + m) \cdot (x + n) = (x - m) \cdot (x - n)$$

$$35. \sqrt{x + m} = \sqrt{x} + \sqrt{n}$$