

## Показательные неравенства

$$1. \frac{5^x}{5^x - 4} + \frac{5^x + 5}{5^x - 5} + \frac{22}{25^x - 9 \cdot 5^x + 20} \leq 0$$

$$2. \frac{25^x - 5^{x+2} + 26}{5^x - 1} + \frac{25^x - 7 \cdot 5^x + 1}{5^x - 7} \leq 2 \cdot 5^x - 24$$

$$3. 3^x + \frac{2 \cdot 3^{x+1}}{3^x - 3} + \frac{9^x + 26 \cdot 3^x + 21}{9^x - 4 \cdot 3^{x+1} + 27} \leq 1$$

$$4. 125^x - 25^x + \frac{4 \cdot 25^x - 20}{5^x - 5} \leq 4$$

$$5. \frac{3^x + 9}{3^x - 9} + \frac{3^x - 9}{3^x + 9} \geq \frac{4 \cdot 3^{x+1} + 144}{9^x - 81}$$

$$6. \frac{3^x}{3^x - 3} + \frac{3^x + 1}{3^x - 2} + \frac{5}{9^x - 5 \cdot 3^x + 6} \leq 0$$