Вариант 1

- $x^{\log_{\sqrt{x}}(x-2)} = 9$
- $\lg(100x)\lg(0,001x) + 4 = 0$
- $\lg(x+1,5) = -\lg x$
- $\dfrac{3}{|x+3|-1} \geq$ ‘$|x+2|$
- $16^x > 0.125$
- $\dfrac{105}{\left(2^{4-x^2}-1\right)^2} - \dfrac{22}{2^{4-x^2}-1} + 1 \geq 0$
- $2^x > 16$
- $\left(\dfrac{2}{9}\right)^{2x+3} = 4,5^{x-2}$
- $9^{x+2} + 45 \cdot 6^x - 9 \cdot 2^{2x+2} = 0$

Вариант 2

- $2\log_8 2x + \log_8(x^2-2x+1) = \dfrac{4}{3}$
- $2\lg\lg x = \lg(3 - 2\lg x)$
- $\dfrac{1}{2}\log_2 x^2 + \log_2(x-6) = 4$
- $|x + |1-x|| > 3$
- $\dfrac{35^{|x|} - 5^{|x|} - 5 \cdot 7^{|x|} + 5}{2^{\sqrt{x+2}} + 1} \geq 0$
- $5^{2x+1} \leq 5^x + 4$
- $2^x + 2^{1-x} - 3 > 0$
- $5^{x+1} - 3 \cdot 5^{x-2} = 122$
- $3^{2x^2-6x+3} + 6^{x^2-3x+1} = 2^{2x^2-6x+3}$

Вариант 3

- $\log_{x+1}(x^2+x-6)^2 = 4$
- $\log_{0.5}(2x-3) - \dfrac{1}{2}\log_{0.5}(2x+3) = 0$

- $9^{\log_3(1-2x)} = 5x^2 - 5$
- $-1 < |x^2 - 7| < 29$
- $3 \cdot 49^x + 21^x - 2 \cdot 9^x \leq 0$
- $\dfrac{1}{3^x + 5} < \dfrac{1}{3^{x+1} - 1}$
- $2^{2x+4} + 2^{2x+1} - 2^{2x+3} > 2^{x+2} + 0.5^{1-x} - 2^{x+1}$
- $4^{x+\sqrt{x^2-2}} - 5 \cdot 2^{x-1+\sqrt{x^2-2}} = 6$
- $32^{3(x^3-8)} = 8^{19(2x-x^2)}$

Вариант 4

- $\log_{25} x + \log_5 x = \log_{\frac{1}{5}} \sqrt{8}$
- $\lg^2 x - 6 \lg \sqrt{x} = \dfrac{2}{3} \lg x^3 - 4$
- $\log_{2^{x+1}+1}(3x^2 + 4x - 3) = \log_{10-2^{2-x}}(3x^2 + 4x - 3)$
- $\dfrac{2|2-x|}{2-|x|} \leq |x-2|$
- $3^{x+1} < \dfrac{9^{4x^2}}{\sqrt{27}}$
- $\dfrac{31 - 5 \cdot 2^x}{4^x - 24 \cdot 2^x + 128} \geq 0.25$
- $2^x + 3 \cdot 2^{2-x} < 7$
- $\left(2 \cdot \left(2^{\sqrt{x}+3}\right)^{\frac{1}{2\sqrt{x}}}\right)^{\frac{2}{\sqrt{x}-1}} = 4$
- $4^x = 2 \cdot 14^x + 3 \cdot 49^x$