

$$N1. \log_{|x+2|} (4+7x-2x^2) \leq 2$$

$$N2. \left((-x+1)^{-1} (-x+4)^{-1} \right)^2 \leq \frac{|x^2+6x|}{(x^2-5x+4)^2}$$

$$N3. \log_x (5-x) < \log_x (x^3-7x^2+14x-5) - \log_x (x-1)$$

$$N4. \frac{2x^2+3x-5}{\log_5(x^2+4x+4)} \geq 0$$

$$N5. \frac{3^x+9}{3^x-9} + \frac{3^x-9}{3^x+9} \geq \frac{4 \cdot 3^{x+1} + 144}{9^x - 81}$$

$$N6. \log_{5-x} \frac{x+4}{(x-5)^{10}} \geq -10$$

$$N7. \log_{9x} 27 \leq \frac{1}{\log_3 x}$$

$$N8. \log_{(x-2)^2} \frac{5-x}{4-x} \leq 1 + \log_{(2-x)^2} \frac{1}{x^2-9x+20}$$

$$N9. \frac{\log_{2^{x+3}} 4}{\log_{2^{x+3}} (-4x)} \leq \frac{1}{\log_2 \left(\log_{\frac{1}{2}} 2^x \right)}$$

$$N10. 4x + 8\sqrt{2-x^2} > 4 + (x^2-x) \cdot 2^x + 2^{x+1} \cdot x \cdot \sqrt{2-x^2}$$