1.55
к4

$$\log_x 2 \cdot \log_{2x} 2 \cdot \log_2 4x > 1$$

$$\log_x 2 \cdot \log_{2x} 2 \cdot (\log_2 4 + \log_2 x) > 1$$

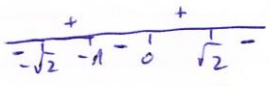
$$\log_x 2 \cdot \frac{1}{\log_2 2x} \cdot (2 + \log_2 x) > 1$$

$$\log_x 2 \cdot \frac{1}{\log_2 2 + \log_2 x} \cdot (2 + \log_2 x) > 1$$

$\log_2 x = t$ (по)

$$\frac{1}{t} \cdot \frac{1}{1+t} \cdot (2+t) > 1$$

$$0 < \frac{2+t-t-t^2}{t(1+t)} = \frac{2-t^2}{t(1+t)}$$



$0 < t < \sqrt{2} \rightarrow 0 < \log_2 x < \sqrt{2} \rightarrow 1 < x < 2^{\sqrt{2}}$

$-\sqrt{2} < t < -1 \quad -\sqrt{2} < \log_2 x < -1 \quad 2^{-\sqrt{2}} < x < \frac{1}{2}$