

$$\textcircled{2} \quad 10^{(6 \log_x 10)^2 - 13} \cdot X^{\log x} > 1 \quad / \log_{10}$$

$$\log [10^{(6 \log_x 10)^2 - 13} \cdot X^{\log x}] > 1$$

$$\log 10^{(6 \log_x 10)^2 - 13} + \log X^{\log x} > \log 1$$

$$[(6 \log_x 10)^2 - 13] \log 10 + \log x \cdot \log x > 0$$

$$36 \log_x^2 10 - 13 + \log x^2 > 0$$

$$\frac{36}{\log^2 x} - 13 + \log^2 x > 0$$

$$\log^2 x = t$$

$$t^2 - 13t + 36 > 0$$

$$\frac{t-4}{4} \cdot \frac{t-9}{9}$$

$$\frac{1}{1+x} > 0$$

$$\log^2 x > 9$$

$$\log x > 3 \quad \text{or} \quad \log x < -3$$

$$x > 1000 \quad \text{or} \quad x < 10^{-3}$$

$$\log^2 x < 4$$

$$-2 < \log x < 2$$

$$\frac{1}{100} < x < 100$$

$$\frac{1}{x+1}$$

$$x < \frac{1}{1000}, \quad \frac{1}{100} < x < 100, \quad x > 1000$$