Вариант 1

$$\bullet \ x^{\lg x} = 100x$$

$$\bullet \ x^{\log \sqrt{x}(x-2)} = 9$$

•
$$2\log_9^2 x - 3\log_9 x + 1 = 0$$

Вариант 2

•
$$\lg^2 x - 6 \lg \sqrt{x} = \frac{2}{3} \lg x^3 - 4$$

$$\bullet \ \log_{\frac{1}{27}} x = -\frac{1}{3}$$

•
$$\log_3(x^2 - 6x) = \log_3(5 - 2x)$$

•
$$\lg x = \frac{1}{2}$$

Вариант 3

$$\bullet \ \log_{4x+1} 7 + \log_{9x} 7 = 0$$

•
$$\lg(100x)\lg(0,001x) + 4 = 0$$

$$\bullet \ 6\log_8 x + \log_{\frac{1}{2}} x = 4$$

•
$$\log_2 \frac{x}{4} = \frac{15}{\log_2 \frac{x}{8} - 1}$$

Вариант 4

$$\bullet \ \lg x - \sqrt{\lg x} - 2 = 0$$

•
$$2\log_5(x^2 - 4) + 4\sqrt{\log_5(x - 2)^2} - \log_5(x + 2)^2 = 5$$

$$\bullet \ \log_{\frac{1}{81}} x = -\frac{3}{2}$$

•
$$\log_2 x = 5$$

Вариант 5

•
$$\log_{49}(2x^2 + x - 5) + \log_{\frac{1}{7}}(1+x) = 0$$

•
$$\lg^2(x+1) = \lg(x+1) \cdot \lg(x-1) + 2\lg^2(x-1)$$

$$\bullet \ \log_{16} x = -\frac{3}{4}$$

Вариант 6

- $25^{\lg x} = 5 + 4x^{\lg 5}$
- $5^{3 \lg x} = 12, 5x$
- $\log_{x+1}(x^2 + x 6)^2 = 4$

Вариант 7

- $3x \log_3 x + 2 = \log_{27} x^3 + 6x$
- $2^{\log_3 x^2} \cdot 5^{\log_3 x} = 400$
- $\frac{1}{2}\log_2 x^2 + \log_2(x-6) = 4$
- $2x + 1 = 2\log_2(9^x + 3^{2x-1} 2^{x+3,5})$