

1.112  
73

x to matn pna

$$3^{\frac{4-x}{x}} \cdot (\sqrt{2})^x = 6$$

$$3^{\frac{4}{x}-1} \cdot 2^{\frac{1}{2}x} = 2 \cdot 3$$

$$\frac{3^{\frac{4}{x}}}{3} \cdot 2^{\frac{1}{2}x} = 2 \cdot 3$$

$$3^{\frac{4}{x}} \cdot 2^{\frac{1}{2}x-1} = 3^2 \rightarrow 3^{\frac{4}{x}-2} = 2^{-\frac{x}{2}+1}$$

$$\left(\frac{4}{x}-2\right) \log_2 3 = -\frac{x}{2}+1 \rightarrow$$

0

$$\begin{cases} \frac{4}{x}-2=0 \\ -\frac{x}{2}+1=0 \end{cases} \rightarrow \boxed{x=2}$$

log<sub>2</sub>  $\frac{2 \cdot 1123}{10315}$

t =  $\frac{2}{x}$  1101

$$(2t-2) \log_2 3 = -\frac{1}{t}+1 \quad | \cdot t$$

$$2t^2 \log_2 3 + t(-1-2 \log_2 3) + 1 = 0$$

$$t_{1,2} = \frac{1+2 \log_2 3 \pm \sqrt{1+4 \log_2 3 + 4 \log_2^2 3 - 8 \log_2 3}}{4 \log_2 3} = \frac{1+2 \log_2 3 \pm \sqrt{1-4 \log_2 3 + 4 \log_2^2 3}}{4 \log_2 3}$$

$$= \frac{1+2 \log_2 3 \pm \sqrt{(1-2 \log_2 3)^2}}{4 \log_2 3} = \frac{1+2 \log_2 3 \pm (1+2 \log_2 3)}{4 \log_2 3}$$

$$t_1 = \frac{2}{4 \log_2 3} = \frac{1}{2 \log_2 3} \rightarrow \frac{2}{x} = \frac{1}{2 \log_2 3} \Rightarrow \boxed{x = 4 \log_2 3}$$

$$t_2 = \frac{4 \log_2 3}{4 \log_2 3} = 1 \rightarrow \frac{2}{x} = 1 \rightarrow \boxed{x = 2}$$