

4.22
k4

$$100 + 5^{\frac{3x-1}{x}} = 5^{\frac{2x+1}{x}}$$

0 3350 1/13x
 $x \neq 0$

$$100 + 5^{3-\frac{1}{x}} = 5^{2+\frac{1}{x}}$$

$$100 + \frac{125}{5^{1/x}} = 25 \cdot 5^{1/x}$$

$$t = 5^{1/x} \quad / \cdot 0$$

$$100 + \frac{125}{t} = 25 \cdot t$$

$$25t^2 + 100t - 125 = 0 \quad /: 25$$

$$t^2 + 4t - 5 = 0$$

$$t = 5 \rightarrow 5^{1/x} = 5 \rightarrow \boxed{x = 1}$$

$$t = -1 \rightarrow \emptyset$$