

Boxed equation

$$\begin{aligned}\sqrt{4x^2} - 1 &= 0 \\ \Rightarrow \sqrt{4}\sqrt{x^2} &= 1 \\ \Rightarrow 2|x| &= 1 \\ \Rightarrow x &= \pm \frac{1}{2}\end{aligned}$$

The final result is

$$\boxed{x = \pm \frac{1}{2}} \tag{1}$$