

Z uvedbo nove spremenljivke $z = \sqrt[3]{x}$ rešite enačbo $\frac{x\sqrt[3]{x}-1}{\sqrt[3]{x^2}-1} = 5$

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reševal je na drugi strani

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$$x = z^3$$

$$\frac{x\sqrt[3]{x}-1}{\sqrt[3]{x^2}-1} = 5$$

~~$$\frac{\sqrt[3]{x}-1}{(\sqrt[3]{x^2} : x)-1} = 5$$~~

~~$$\frac{\sqrt[3]{x}-1}{\sqrt[3]{x^2} : \sqrt[3]{x^2}-1} = 5$$~~

~~$$\frac{\sqrt[3]{x}-1}{\sqrt[3]{x^2}-x^2-1} = 5$$~~

~~$$\frac{\sqrt[3]{x}-1}{\sqrt[3]{x^2}-x^2-1} = 5$$~~

$$\sqrt[3]{x} = z$$

$$\sqrt[3]{x^2} = (\sqrt[3]{x})^2 = z^2$$

TOREJ VSTAVIŠ

$$z \cdot z - 1 = 5$$

$$z^2 - 1 \rightarrow z^2 \neq 1$$

$$\frac{z^4 - 1}{z^2 - 1} = 5 \quad !!!$$

$$z^4 - 1 = 5z^2 - 5$$

$$z^4 - 5z^2 + 4 = 1$$

$$(z^2 - 4)(z^2 - 1) = 0$$

$$z^2 = 4 \quad z_{1,2} = \pm 2$$

$$z - 1 = -5$$

$$z = -5 + 1$$

$$z = -4$$

V KNJIGI

SO DRUGAČNI

REZULTATI (NISI PREVERIL)

$$z^2 = 1$$

$$x = z^3 = \pm 8$$