Conditions

Consider a number a in the Reals with a>0 and n in the Naturals. Show that there exists a unique x in the Reals such that x^n=a

Solution

$$x^n = a$$

This is an arithmetical N-th root **by the definition**. A real number or complex number has n roots of degree n.

$$x = \sqrt[n]{a}$$

This function has an unique values for all a>0, that's why for each fixed a exist one and only one x: $x = \sqrt[n]{a}$.

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