Ρ Ι Ζ Ι Κ Α

1. $\sqrt[\nu]{\alpha} \geq 0, \quad \alpha \geq 0$

2. $\left(\sqrt[\nu]{\alpha}\right)^{\nu} = \sqrt[\nu]{\alpha^{\nu}} = \alpha$

3. $\sqrt[\nu]{\alpha} \leq \sqrt[\nu]{\beta} \Leftrightarrow \alpha \leq \beta$

4. $\sqrt[\mu]{\sqrt[\nu]{\alpha}} = \sqrt[\mu\cdot\nu]{\alpha}$

5. $\sqrt[\nu]{\alpha} \cdot \sqrt[\nu]{\beta} = \sqrt[\nu]{\alpha \cdot \beta}$

6. $\alpha \cdot \sqrt[\nu]{\beta} = \sqrt[\nu]{\alpha^{\nu} \cdot \beta}$

7. $\sqrt[\nu\cdot\mu]{\alpha^{\mu}} = \sqrt[\nu]{\alpha}$

8. $\dfrac{\sqrt[\nu]{\alpha}}{\sqrt[\nu]{\beta}} = \sqrt[\nu]{\dfrac{\alpha}{\beta}}, \quad \beta > 0$

9. $\sqrt[2\nu]{\alpha^{2\nu}} = |\alpha|$

10. $\alpha^{\frac{\kappa}{\lambda}} = \sqrt[\lambda]{\alpha^{\kappa}} \qquad \kappa, \lambda \in \mathrm{IN}^{*}$

Η εξίσωση : $x^{\nu} = \alpha$

α	**ν**	**Ρίζες της $x^{\nu} = \alpha$**
$\alpha = 0$	$\nu = 2\kappa$ **ή** $\nu = 2\kappa+1$	Μία ρίζα: $x = 0$
$\alpha > 0$	$\nu = 2\kappa$	Δύο ρίζες αντίθετες: $x_1 = \sqrt[\nu]{\alpha}, \quad x_2 = -\sqrt[\nu]{\alpha}$
	$\nu = 2\kappa+1$	Μία ρίζα: $x = \sqrt[\nu]{\alpha}$
$\alpha < 0$	$\nu = 2\kappa$	Δεν υπάρχουν ρίζες, **Α Δ Υ Ν Α Τ Η ΣΤΟ R**
	$\nu = 2\kappa+1$	Μία ρίζα: $x = -\sqrt[\nu]{-\alpha}$