

Ρ Ι Ζ Ι Κ Α

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

$$2. (\sqrt[v]{\alpha})^v = \sqrt[v]{\alpha^v} = \alpha$$

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

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

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

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

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

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

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

$$10. \alpha^{\frac{\kappa}{\lambda}} = \sqrt[\lambda]{\alpha^\kappa} \quad \kappa, \lambda \in \mathbb{N}^*$$

Η εξίσωση : $x^v = \alpha$

α	v	Ρίζες της $x^v = \alpha$
$\alpha = 0$	$v = 2\kappa$ ή $v = 2\kappa + 1$	Μία ρίζα: $x = 0$
$\alpha > 0$	$v = 2\kappa$	Δύο ρίζες αντίθετες: $x_1 = \sqrt[v]{\alpha}, \quad x_2 = -\sqrt[v]{\alpha}$
	$v = 2\kappa + 1$	Μία ρίζα: $x = \sqrt[v]{\alpha}$
$\alpha < 0$	$v = 2\kappa$	Δεν υπάρχουν ρίζες, ΑΔΥΝΑΤΗ ΣΤΟ R
	$v = 2\kappa + 1$	Μία ρίζα: $x = -\sqrt[v]{-\alpha}$