

RAICES

PROPIEDADES						
$\sqrt[n]{a^p} = \sqrt[n]{a}^p$	$\sqrt[n]{a \cdot b} = \sqrt[n]{a} \cdot \sqrt[n]{b}$	$\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$	$(\sqrt[n]{a})^p = \sqrt[n]{a^p}$	$\sqrt[n]{\sqrt[n]{a}} = \sqrt[n]{a}^{\frac{1}{n}}$	$a \sqrt[n]{a} = \sqrt[n]{a^{n+1}}$	$\sqrt[n]{a^p} = a^{p/n}$
$\sqrt[6]{2^2} = \sqrt[3]{2}$	$\sqrt[2]{4 \cdot 3} = \sqrt{4} \cdot \sqrt{3}$	$\sqrt[2]{\frac{5}{6}} = \frac{\sqrt{5}}{\sqrt{6}}$	$(\sqrt[2]{2})^4 = \sqrt[2]{2^4}$	$\sqrt[6]{\sqrt[2]{3}} = \sqrt[12]{3}$	$2^4 \sqrt{3} = \sqrt[4]{2^4 \cdot 3}$	$\sqrt[6]{2^2} = 2^{2/6}$

$$3\sqrt{45} - 4\sqrt{80} + 2\sqrt{125} + 5\sqrt{20}$$

$$2\sqrt{12} - 3\sqrt{75} + \sqrt{27}$$

$$4\sqrt{8} + 10\sqrt{3} - 5\sqrt{75} + \sqrt{900}$$

$$2\sqrt{8} + 5\sqrt{72} - 7\sqrt{18} - \sqrt{50}$$

$$\sqrt{32} + 2\sqrt{3} - \sqrt{8} + \sqrt{2} - 2\sqrt{12}$$

$$3\sqrt{5} - 2\sqrt{45} - \sqrt{20} + 3\sqrt{20}$$

$$2\sqrt{108} - \sqrt{75} - \sqrt{27} - \sqrt{12} - \sqrt{3}$$

$$4\sqrt{3} + 15\sqrt{3} + 3\sqrt{2} - 7\sqrt{3}$$

$$\sqrt{18} - 3\sqrt{8} - \sqrt{2} + 5\sqrt{2}$$

$$10\sqrt{7} + 8\sqrt{700} - 3\sqrt{2} + 8\sqrt{200}$$

$$\sqrt[3]{\sqrt[4]{2}}$$

$$\sqrt[3]{\sqrt[3]{\sqrt[2]{2}}}$$

$$2\sqrt{12} - 3\sqrt{75} + \sqrt{27}$$

$$2\sqrt{5} + \sqrt{45} + \sqrt{180} - \sqrt{80}$$

$$\sqrt[3]{54} - \sqrt[3]{16} + \sqrt[3]{250}$$

$$3\sqrt{5} - 2\sqrt{45} - \sqrt{20} + 3\sqrt{20}$$

$$\sqrt{27} - \sqrt{12} - \sqrt{75} + \sqrt{3}$$

$$\sqrt{45} - \sqrt{20} + \sqrt{80} - \sqrt{5}$$

RACIONALIZAR		
$\frac{1}{\sqrt{2}} = \frac{1\sqrt{2}}{\sqrt{2}\sqrt{2}} = \frac{1\sqrt{2}}{2}$	$\frac{1}{\sqrt[5]{2}} = \frac{1\sqrt[5]{2^4}}{\sqrt[5]{2}\sqrt[5]{2^4}} = \frac{1\sqrt[5]{2^4}}{2}$	$\frac{1}{3\sqrt[5]{2}} = \frac{1\sqrt[5]{2^4}}{3\sqrt[5]{2}\sqrt[5]{2^4}} = \frac{1\sqrt[5]{2^4}}{3(2)} = \frac{1\sqrt[5]{2^4}}{6}$
$\frac{1}{3 - \sqrt{2}} = \frac{1(3 + \sqrt{2})}{(3 - \sqrt{2})(3 + \sqrt{2})} = \frac{1(3 + \sqrt{2})}{3^2 - \sqrt{2}^2} = \frac{1(3 + \sqrt{2})}{7}$	$\frac{1}{\sqrt{2} - \sqrt{3}} = \frac{1}{(\sqrt{2} - \sqrt{3})(\sqrt{2} + \sqrt{3})} = \frac{1}{\sqrt{2}^2 - \sqrt{3}^2} = \frac{1}{2 - 3} = \frac{1}{-1}$	

$$\frac{1}{\sqrt{7}}$$

$$\frac{5}{\sqrt{9}}$$

$$\frac{12}{\sqrt{25}}$$

$$\frac{8}{\sqrt{9}}$$

$$\frac{6}{\sqrt{49}}$$

$$\frac{1}{\sqrt[4]{3}}$$

$$\frac{4}{\sqrt[2]{2}}$$

$$\frac{8}{\sqrt[3]{8}}$$

$$\frac{2}{\sqrt[2]{2^3}}$$

$$\frac{1}{\sqrt[2]{2^3}}$$

$$\frac{1}{4\sqrt[5]{3}} =$$

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

$$\frac{41}{3\sqrt[7]{3^3}} =$$

$$\frac{41}{9\sqrt[7]{4^3}} =$$

$$\frac{3}{2\sqrt[7]{5^4}} =$$

$$\frac{1}{4 - \sqrt{7}}$$

$$\frac{4 - \sqrt{7}}{4 - \sqrt{7}}$$

$$\frac{1}{5 + \sqrt{3}}$$

$$\frac{1}{3 + \sqrt[2]{4}}$$

$$\frac{20}{5 - \sqrt{10}}$$

$$\frac{1}{\sqrt{7} - \sqrt{5}}$$

$$\frac{3}{\sqrt{8} - \sqrt{9}}$$

$$\frac{3}{\sqrt{12} + \sqrt{3}}$$

$$\frac{4}{\sqrt{8} - \sqrt{5}}$$

$$\frac{12}{\sqrt{10} - \sqrt{3}}$$

$$\frac{2\sqrt{2}}{3\sqrt{3}}$$

$$\frac{3\sqrt{2}}{\sqrt{3}}$$

$$\frac{3}{3 + \sqrt{5}}$$

$$\frac{\sqrt{3}}{\sqrt{3} + \sqrt{2}}$$

$$\frac{3}{\sqrt{5} - \sqrt{2}}$$