Ec. Irationale – Formule

$\sqrt[n]{a}$ radicalul este **definit** pentru **a>=0** (daca **n** este **par**)

$\sqrt{a^2}=|a|$ $\sqrt[n]{a*b}=\sqrt[n]{a}*\sqrt[n]{b}$ $\sqrt[n]{\frac{a}{b}}=\frac{\sqrt[n]{a}}{\sqrt[n]{b}}$ $\sqrt[n]{a^m}=a^{\frac{m}{n}}$

$\sqrt[m]{\sqrt[n]{a}}=\sqrt[m*n]{a}$ $(\sqrt[n]{a})^m=\sqrt[n]{a^m}$

Formula radicalilor compusi:

$$\sqrt{a+\sqrt{b}}=\sqrt{\frac{a+\sqrt{a^2-b}}{2}}+\sqrt{\frac{a-\sqrt{a^2-b}}{2}}$$

$$\sqrt{a-\sqrt{b}}=\sqrt{\frac{a+\sqrt{a^2-b}}{2}}-\sqrt{\frac{a-\sqrt{a^2-b}}{2}}$$

Numitorul	Formula utilizata	Cu ce amplificam	Num. dupa amplificare
$\sqrt{a}+/-\sqrt{b}$	$x^2-y^2=(x-y)(x+y)$	$\sqrt{a}-/+\sqrt{b}$	a-b
$\sqrt[n]{a^k}$	-	$\sqrt[n]{a^{n-k}}$	a
$\sqrt[3]{a}+\sqrt[3]{b}$	$x^3+y^3=(x+y)(x^2-xy+y^2)$	$\sqrt[3]{a^2}-\sqrt[3]{ab}+\sqrt[3]{b^2}$	a+b
$\sqrt[3]{a^2}-\sqrt[3]{ab}+\sqrt[3]{b^2}$	$x^3+y^3=(x+y)(x^2-xy+y^2)$	$\sqrt[3]{a}+\sqrt[3]{b}$	a+b
$\sqrt[3]{a}-\sqrt[3]{b}$	$x^3-y^3=(x-y)(x^2+xy+y^2)$	$\sqrt[3]{a^2}+\sqrt[3]{ab}+\sqrt[3]{b^2}$	a-b
$\sqrt[3]{a^2}+\sqrt[3]{ab}+\sqrt[3]{b^2}$	$x^3-y^3=(x-y)(x^2+xy+y^2)$	$\sqrt[3]{a}-\sqrt[3]{b}$	a-b
$\sqrt[n]{a}-\sqrt[n]{b}$	$x^n-y^n=(x-y)(x^{n-1}+x^{n-2}y+\ldots+y^{n-1})$	$\sqrt[n]{a^{n-1}}+\ldots+\sqrt[n]{b^{n-1}}$	a-b