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Disciplina: Matemática

Tarefa Básica

01. (UEL) Calculando-se $\left(-\frac{1}{243}\right)^{-\frac{2}{5}}$

$\left(-\frac{1}{243}\right)^{-\frac{2}{5}} = (-0{,}0041152263374)^{-0{,}4}$

R: 9

02. (UEL) A expressão $4^{0,5^{(2^{0,5})^2}}$ é igual a:

$4^{0,5^{(2^{0,5})^2}} = 4^{0,5^{1,41^2}} = 4^{0,5^{1,98}} = 4^{0,25} = 1{,}41$

R: $\sqrt{2} = 1{,}41$

03. (MACK) Supondo $\sqrt{2} = 1{,}68$, o valor mais próximo de $\sqrt{\frac{0{,}09}{\sqrt{2}}}$ é:

04. (FUVEST) O valor da expressão $\frac{2-\sqrt{2}}{\sqrt{2}-1}$

$\frac{2-\sqrt{2}}{\sqrt{2}-1} \text{ X } \frac{\sqrt{2}+1}{\sqrt{2}+1} = \frac{(2-\sqrt{2}) \,.\, (\sqrt{2}+1)}{2-1} = \frac{(2-\sqrt{2}) \,.\, (\sqrt{2}+1)}{1} =$

$(2-\sqrt{2}) \text{ x } (\sqrt{2}+1) = 2\sqrt{2} + 2 - 2 - \sqrt{2} = 2\sqrt{2} - \sqrt{2} = \sqrt{2}$

05. (UEL) Racionalizando-se $\frac{10}{\sqrt{18}+2\sqrt{2}}$

$\frac{10}{\sqrt{18}+2\sqrt{2}} = \frac{10}{3\sqrt{2}+2\sqrt{2}} = \frac{10}{5\sqrt{2}} = \frac{2}{\sqrt{2}}$

$\frac{2}{\sqrt{2}} \text{ x } \frac{\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{\sqrt{2}\sqrt{2}} = \frac{2\sqrt{2}}{2} = \sqrt{2}$

06. Assinale a correta:

$\sqrt[3]{-27} = -\sqrt[3]{3^3} = -3$ I Correta

$\frac{1}{\sqrt{3}} \text{ x } \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{\sqrt{3}\sqrt{3}} = \frac{\sqrt{3}}{3}$ III Correta

Altenativa C

07. A soma $\sqrt{\frac{3}{4}} + \sqrt{\frac{4}{3}}$ é igual a:

$\sqrt{\frac{3}{4}} + \sqrt{\frac{4}{3}} = \frac{\sqrt{3}}{2} + \frac{2}{\sqrt{3}} = \frac{\sqrt{3}}{2} + \frac{2\sqrt{3}}{3} =$

$\frac{7\sqrt{3}}{6}$