

EJERCICIOS DE N° REALES. 4° E.S.O.

1- Halla las sumas:

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

$$\sqrt{24} - 5\sqrt{6} + \sqrt{486} =$$

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

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

$$\sqrt{2} + \frac{1}{\sqrt{2}}$$

$$\sqrt[3]{16} + \sqrt[3]{250} + \sqrt[6]{4} - \frac{1}{\sqrt[3]{4}} =$$

2- Realizar los productos:

$$\sqrt{2} \cdot \sqrt{6} = \quad \sqrt{3} \cdot \sqrt[3]{9} \cdot \sqrt[4]{27} = \quad \sqrt{12} \cdot \sqrt[3]{36} =$$

3- Efectúa las divisiones de radicales:

$$\frac{\sqrt[5]{128}}{\sqrt[5]{16}} = \quad \frac{\sqrt[3]{4}}{\sqrt{2}} = \quad \frac{\sqrt{256}}{\sqrt[3]{16}} =$$

4- Calcula:

$$\frac{\sqrt{a} \cdot \sqrt[3]{a^2} \cdot \sqrt[4]{a^3}}{\sqrt[6]{a^4}} = \quad \sqrt[4]{\frac{\sqrt[3]{2}}{\sqrt{8}}} =$$

5- Realiza las operaciones:

$$(\sqrt[3]{18})^2 = \left(\frac{\sqrt[3]{12} \cdot \sqrt[4]{18}}{\sqrt{6}} \right)^4 = (\sqrt{7} - \sqrt{2})^2 =$$

$$(2 - \sqrt{3})^2 = (\sqrt{5} + 2) \cdot (\sqrt{5} - 2) =$$

$$(2\sqrt{5} + 3\sqrt{2}) \cdot (2\sqrt{5} - 3\sqrt{2}) = \frac{1}{2 - \sqrt{3}} \cdot \frac{1}{2 + \sqrt{3}} =$$

$$\sqrt{\frac{a-b}{(a-b)^2} \cdot \frac{a+b}{a^2-b^2}} = \sqrt[3]{4\sqrt{2}} = \sqrt{2 \sqrt[3]{2} \sqrt[4]{2}} =$$

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

6- Racionalizar los radicales:

$$\frac{2}{3\sqrt{2}} = \frac{2}{3\sqrt[3]{4}} = \frac{2}{\sqrt{2} - \sqrt{3}} =$$

$$\frac{2}{4 - 2\sqrt{2}} = \frac{2\sqrt{2}}{5 - 2\sqrt{6}} = \frac{5}{2\sqrt{2}} =$$

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

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

7- Opera:

$$\sqrt[3]{16} + \sqrt[3]{250} + \sqrt[6]{4} - \frac{1}{\sqrt[3]{4}} =$$

$$\frac{\sqrt{a} \cdot \sqrt[3]{a^2} \cdot \sqrt[4]{a^3}}{\sqrt[6]{a^4}} =$$