



Comunidad de Madrid

EJERCICIOS DE RADICALES

1.- Expresa como potencia los siguientes radicales:

a. $\sqrt{3} = \quad -$

b. $\sqrt[5]{7} = \quad -$

c. $\sqrt[3]{4} = \quad -$

d. $\sqrt[4]{3^2} = \quad -$

2.- Expresa como radical las siguientes potencias:

a. $3^{\frac{1}{5}} = \sqrt{\quad}$

b. $5^{\frac{2}{3}} = \sqrt{\quad}$

c. $7^{\frac{2}{5}} = \sqrt{\quad}$

d. $2^{\frac{3}{2}} = \sqrt{\quad}$

3.- Extrae factores de los siguientes radicales:

a. $\sqrt{18} = \sqrt{\quad \cdot \quad} = \sqrt{\quad}$

b. $\sqrt[3]{81} = \sqrt{\quad} = \sqrt{\quad \cdot \quad} = \sqrt{\quad}$

c. $\sqrt{5^3} = \sqrt{\quad \cdot \quad} = \sqrt{\quad}$

d. $\sqrt[5]{2^7} = \sqrt{\quad \cdot \quad} = \sqrt{\quad}$



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$$e. \sqrt[4]{243} = \sqrt{\quad} = \sqrt{\quad \cdot \quad} = \sqrt{\quad}$$

$$f. \sqrt[3]{432} = \sqrt{\quad \cdot \quad} = \sqrt{\quad \cdot \quad \cdot \quad} = \sqrt{\quad}$$

4.- Realiza las siguientes operaciones con radicales, simplificando los resultados:

$$a. 3\sqrt{2} + 4\sqrt{2} = \sqrt{\quad}$$

$$b. 4\sqrt[3]{5} - 2\sqrt[3]{5} = \sqrt{\quad}$$

$$c. 6\sqrt{3} + 6\sqrt[3]{4} = \sqrt{\quad}$$

$$d. 2\sqrt[3]{4} + 3\sqrt[3]{4} - 7\sqrt[3]{4} = \sqrt{\quad}$$

$$e. 2\sqrt{8} - \sqrt{32} + \sqrt{18} = \sqrt{\quad} - \sqrt{\quad} + \sqrt{\quad \cdot \quad}$$

$$= \sqrt{\quad} - \sqrt{\quad} + \sqrt{\quad} =$$

$$= \sqrt{\quad} - \sqrt{\quad} + \sqrt{\quad} = \sqrt{\quad}$$

$$f. -\sqrt{27} + 5\sqrt{12} + 2\sqrt{75} = \sqrt{\quad} - \sqrt{\quad \cdot \quad} +$$

$$\sqrt{\quad \cdot \quad} =$$

$$= \sqrt{\quad} - \sqrt{\quad} + \sqrt{\quad} =$$



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$$= \sqrt{\quad} - \sqrt{\quad} + \sqrt{\quad} = \sqrt{\quad}$$

g. $\sqrt[3]{3} \cdot \sqrt[3]{5} = = \sqrt{\quad}$

h. $\sqrt[4]{16} \cdot \sqrt[4]{2x} = \sqrt{\quad} = \sqrt{\quad} = \sqrt{\quad}$

i. $\sqrt[5]{32} : \sqrt[5]{2} = = \sqrt{\quad} = \sqrt{\quad} = \sqrt{\quad}$

j. $\sqrt{4x^2} : \sqrt{2x} = \sqrt{\quad} = \sqrt{\quad}$

k. $\sqrt[3]{6} \cdot \sqrt[3]{3} = \sqrt{\quad} \cdot \sqrt{\quad} = \sqrt{\quad} \cdot$

l. $\sqrt[4]{32} : \sqrt[3]{4} = = \sqrt{\quad} : \sqrt{\quad} = \sqrt{\quad} : \quad =$
 $= \sqrt{\quad} = \sqrt{\quad}$

3.- Racionaliza:

a. $\frac{3}{\sqrt{5}} = \frac{\sqrt{\quad}}{\sqrt{\quad} \sqrt{\quad}} = \frac{\sqrt{\quad}}{\sqrt{\quad}} = \frac{\sqrt{\quad}}{\quad}$

b. $\frac{2}{\sqrt[5]{3}} = \frac{\sqrt{\quad}}{\sqrt{\quad} \sqrt{\quad}} = \frac{\sqrt{\quad}}{\sqrt{\quad}} = \frac{\sqrt{\quad}}{\quad}$

c. $\frac{\sqrt{5}}{\sqrt[3]{5}} = \frac{\sqrt{\quad} \cdot \sqrt{\quad}}{\sqrt{\quad} \sqrt{\quad}} = \frac{\sqrt{\quad} \cdot \sqrt{\quad}}{\sqrt{\quad}} = \frac{\sqrt{\quad}}{\quad} = \frac{\sqrt{\quad}}{\quad} = \sqrt{\quad}$