FRACCIONES

Problema 74:

Racionalizar el denominador:

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

Solución Problema 74:

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

Multiplicamos numerador por el conjugado del denominador:

$$\frac{1}{\sqrt[3]{1+\sqrt{2}}} = \frac{1}{\sqrt[3]{1+\sqrt{2}}} \cdot \frac{\sqrt[3]{1-\sqrt{2}}}{\sqrt[3]{1-\sqrt{2}}} = \frac{\sqrt[3]{1-\sqrt{2}}}{\sqrt[3]{(1+\sqrt{2})\cdot(1-\sqrt{2})}} = \frac{\sqrt[3]{1-\sqrt{2}}}{\sqrt[3]{(1)^2-(\sqrt{2})^2}} =$$

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