

PROBLEMAS DE EXPRESIONES ALGEBRAICAS Y OPERACIONES

Problema 106:

Resolver:

$$\frac{(a^{-1} + b^1) \cdot (a + b)^{-1}}{\sqrt[6]{a^4 \sqrt[5]{a^{-2}}}} \cdot a^{8/5} \cdot b$$

Solución Problema 106:

$$\frac{(a^{-1} + b^{-1}) \cdot (a + b)^{-1}}{\sqrt[6]{a^4 \sqrt[5]{a^{-2}}}} \cdot a^{8/5} \cdot b = \frac{\left(\frac{1}{a} + \frac{1}{b}\right) \cdot \left(\frac{1}{a + b}\right)}{\sqrt[6]{a^4 \sqrt[5]{a^{-2}}}} \cdot a^{8/5} \cdot b =$$

$$= \frac{\left(\frac{b + a}{a \cdot b}\right) \cdot \left(\frac{1}{a + b}\right)}{a^{4/6} \cdot \sqrt[30]{a^{-2}}} \cdot a^{8/5} \cdot b = \frac{a + b}{(a \cdot b)(a + b)} \cdot a^{8/5} \cdot b =$$

$$= \frac{1}{a^{2/3} \cdot a^{-1/15}} \cdot a^{8/5} \cdot b = \frac{a^{8/5} \cdot b}{(a \cdot b) \cdot a^{2/3} \cdot a^{-2/15}} = \frac{a^{8/5}}{a \cdot a^{2/3} \cdot a^{-2/15}} = \frac{a^{8/5}}{a^{24/15}} =$$

$$\frac{a^{8/5}}{a^{24/15}} = \frac{a^{8/5}}{a^{8/5}} = 1$$