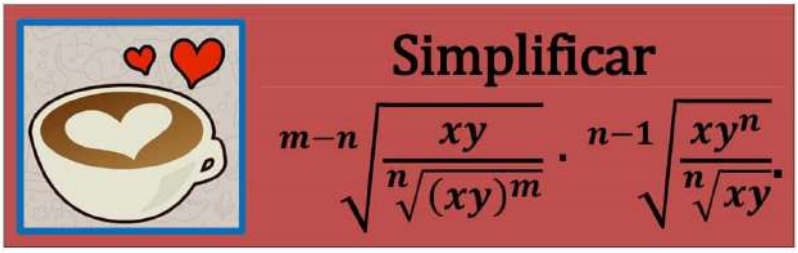
Solución a simplificar

Enunciado:



Solución:

Simplifiquemos cada factor por separado:

$$\sqrt[m-n]{\frac{xy}{\sqrt[n]{(xy)^m}}} = \sqrt[m-n]{\frac{xy}{(xy)^{\frac{m}{n}}}} = \sqrt[m-n]{(xy)^{1-\frac{m}{n}}} = \sqrt[m-n]{(xy)^{\frac{n-m}{n}}} = (xy)^{\frac{n-m}{n}\cdot\frac{1}{m-n}} = (xy)^{\frac{-1}{n}} = x^{\frac{-1}{n}} \cdot y^{\frac{-1}{n}}$$

$$\sqrt[n-1]{\frac{xy^n}{\sqrt[n]{xy}}} = \sqrt[n-1]{\frac{xy^n}{x^{\frac{1}{n}} \cdot y^{\frac{1}{n}}}} = \sqrt[n-1]{x^{1-\frac{1}{n}} \cdot y^{n-\frac{1}{n}}} = \sqrt[n-1]{x^{\frac{n-1}{n}} \cdot y^{\frac{n^2-1}{n}}} = x^{\frac{n-1}{n}\cdot\frac{1}{n-1}} \cdot y^{\frac{n^2-1}{n}\cdot\frac{1}{n-1}} = x^{\frac{1}{n}} \cdot y^{\frac{n+1}{n}}$$

Por lo que su producto será: $x^{\frac{-1}{n}} \cdot x^{\frac{1}{n}} \cdot y^{\frac{-1}{n}} \cdot y^{\frac{n+1}{n}} = x^0 \cdot y^1 = y$

Solución: y

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