RADICACIÓN

Problema 60:

Simplifica:

$$\{\frac{a^{p-q}}{\sqrt[q]{a^{q^2-pq}}}\cdot a^{2(p-q)}\}^n$$

Solución Problema 60:

$$\{\frac{a^{p-q}}{\sqrt[q]{a^{q^2-pq}}}\cdot a^{2(p-q)}\}^n=\{\frac{a^{p-q}\cdot a^{2(p-q)}}{\sqrt[q]{a^{q^2-pq}}}\}^n=\{\frac{a^{3(p-q)}}{\sqrt[q]{a^{q^2}}\cdot\sqrt[q]{a^{-pq}}}\}^n=\{\frac{a^{3(p-q)}}{a^{\frac{q^2}{q}}\cdot a^{\frac{-p}{q}}}\}^n=\{\frac{a^{3(p-q)}}{a^q\cdot a^{-p}}\}^n=\{a^{3(p-q)}\cdot a^{-q}\cdot a^p\}^n=$$

$$=\{a^{3(p-q)}\cdot a^{p-q}\}^n=\{a^{4(p-q)}\}^n=a^{4n(p-q)}$$

Luego:

$$\{\frac{a^{p-q}}{\sqrt[q]{a^{q^2-pq}}}\cdot a^{2(p-q)}\}^n=a^{4n(p-q)}$$