

# Exponents

Worked Examples

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$$\sqrt[4]{x^2 y^6} = (x^2 y^6)^{1/4} = (x^2)^{1/4} (y^6)^{1/4} = x^{1/2} y^{3/2}$$

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$$\frac{a^{10}b^{-4}}{a^2b^{-5}} = \left( \frac{a^{10}}{a^2} \right) \left( \frac{b^{-4}}{b^{-5}} \right) = a^8b$$

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$$\frac{3}{w^{-4}} = 3 \cdot \frac{1}{w^{-4}} = 3w^4$$

Use your calculator and exponents to compute:  $\sqrt[7]{356}$

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$$\sqrt[7]{356} = (356)^{1/7} \cong 2.315$$

Be sure to put the 1/7 inside parentheses when you put this into your calculator.

On a TI-84 type calculator, you would type:  $356^{(1/7)}$