

Rationalize each denominator and simplify. A variables are posit

$$\frac{3}{\sqrt[8]{a^{15}}} \cdot \frac{\sqrt[8]{a^3}}{\sqrt[8]{a^5}} = \frac{\sqrt[8]{a^3}}{\sqrt[8]{a^{15}}} = \frac{3\sqrt[8]{a^3}}{a^3}$$

What is the smallest quantity can be put in the r the second radical in order to multiply the two  $r\epsilon$  be able to perform the root of the entire r

1. 
$$\sqrt{3w^5x^9} \cdot \sqrt{3w \times} = \sqrt{9\omega^6x^6} = 3\omega^3x^5$$

$$2 \sqrt{12g^4h^{13}} \cdot \sqrt{3} h = \sqrt{36g^4h^4} = 6g^2h^7$$

What is the smallest quantity can be put in the r the second radical in order to multiply the two rabe able to perform the root of the entire I

$$3 \sqrt[3]{7c^7d^{11}} \cdot \sqrt[3]{-2c^2d} = \sqrt[3]{3c^9d^2} = 7c^3d^4$$

$$4. \sqrt[3]{36a^5b^{16}} \cdot \sqrt[3]{6ab^2} = \sqrt[3]{6^36b^{16}} = 6a^2b^3$$

Rationalize each denominator and Assume all variables are po

1. 
$$\frac{1}{\sqrt[3]{ab^2}} \cdot \underbrace{\sqrt[3]{a^2b}}_{\sqrt[3]{a^3b}} = \underbrace{\frac{\sqrt[3]{a^3b}}{\sqrt[3]{a^3b}}}_{\sqrt[3]{a^3b}}$$

## Rationalize each denominator and Assume all variables are po

$$\frac{9}{\sqrt[4]{c^2 d^3 e}} \cdot \frac{\sqrt[4]{c^2 d e^3}}{\sqrt[4]{c^2 d e^3}} = \frac{9 \sqrt[4]{c^2 d e^3}}{\sqrt[4]{c^4 d^4 e^4}} = \frac{9 \sqrt[4]{c^2 d e^3}}{\sqrt[4]{c^2 d e^3}} = \frac{9 \sqrt[4]{c^2 d e^3}}{\sqrt[4]{c^2 d e^3}}$$

## Rationalize each denominator and Assume all variables are or

3. 
$$\frac{a\sqrt[4]{6b}}{\sqrt[4]{12a^3b^5c}} = \frac{a\sqrt[4]{2a^3b^4c}}{\sqrt[4]{2a^3b^4c}} = \frac{a\sqrt[4]{8ac^3}}{\sqrt[4]{8ac^3}}$$
you can simplify the ratio of the two radicals first then rationalize.
$$= \frac{a\sqrt[4]{8ac^3}}{2abc} = \frac{\sqrt[4]{8ac^3}}{2bc}$$

## Rationalize each denominator and Assume all variables are po

4. 
$$\frac{12j^{4}k}{\sqrt{8j^{7}k^{17}}} \cdot \frac{\sqrt[4]{2j}k^{3}}{\sqrt[4]{2j}k^{3}} = \frac{\sqrt[4]{2j}^{4}k}{\sqrt[4]{2j}k^{3}}$$

$$= \frac{\sqrt[4]{8j^{7}k^{17}}}{\sqrt[4]{2j}k^{3}}$$

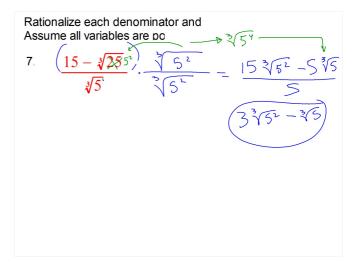
$$= \frac{\sqrt[4]{8j^{7}k^{17}}}{\sqrt[4]{2j}k^{3}}$$

$$= \frac{\sqrt[4]{8j^{7}k^{17}}}{\sqrt[4]{8j^{7}k^{17}}}$$

## Rationalize each denominator and Assume all variables are po

$$\frac{48x^{12}y}{\sqrt[5]{4x^{13}y^{21}}} = \frac{48x^{12}y}{\sqrt[5]{2^3x^2y^4}} = \frac{48x^2y}{\sqrt[5]{2^3x^2y^4}} = \frac{48x^2y}{\sqrt[5]{2^3x^2y^4}} = \frac{48x^2y}{\sqrt[5]{2^3x^2y^4}} = \frac{24x^3\sqrt[5]{2^3x^2y^4}}{\sqrt[5]{y^4}}$$

Rationalize each denominator and Assume all variables are po
$$\frac{5 + \sqrt{2} - \sqrt{3}}{\sqrt{3}} \qquad \frac{\sqrt{3}}{\sqrt{3}} = \frac{5\sqrt{3} + \sqrt{b} - 3}{3}$$



You can now finish Hv

Sec 7-

Due Tomorro

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Problems 28, 30, 31, 34, 47, 48, 50,