Algebra 2 Bellwork Thursday, February 25, 2016

1. Simplify. Use absolute value symbols when needed.

$\sqrt[4]{128a^9b^{15}c^{34}} =$

Rationalize each. Simplify if possible. Assume all variables are positive.

2. $\frac{14}{\sqrt{12}}$

3. $\frac{7}{\sqrt[4]{64}}$

4. $\frac{6}{\sqrt{10g^7h^3}}$

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1. Simplify. Use absolute value symbols when needed.

$\sqrt[4]{128a^9b^{15}c^{34}} =$ $16 \cdot 8$

$2a^2|b^3|c^8\sqrt[4]{8ab^3c^2}$

$2^4 = 16$
$3^4 = 81$
$4^4 = 256$

Rationalize each. Simplify if possible. Assume all variables are positive.

2. $\frac{14}{\sqrt{12}} = \frac{14}{2\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{14\sqrt{3}}{2 \cdot 3}$ $4 \cdot 3$ $\sqrt{3^2}$ $= \frac{7\sqrt{3}}{3}$

3. $\frac{7}{\sqrt[4]{64}} = \frac{7}{\sqrt[4]{4^3}} \cdot \frac{\sqrt[4]{4}}{\sqrt[4]{4}} = \frac{7\sqrt[4]{4}}{4}$ $\sqrt[4]{4^4}$

4. $\frac{6}{\sqrt{10g^7h^3}} \cdot \frac{\sqrt{10gh}}{\sqrt{10gh}} = \frac{6\sqrt{10gh}}{\sqrt{10^2g^8h^4}} = \frac{6\sqrt{10gh}}{10g^4h^2} = \frac{3\sqrt{10gh}}{5g^4h^2}$