Algebra 2 Bellwork Tuesday, April 21, 2015

Simplify each radical. Use absolute value symbols where necessary.

1. $\sqrt[4]{324w^{16}x^{25}y^{35}}$

2. $\sqrt[5]{192b^{18}c^{30}d^{21}}$

Simplify each product. Assume all variables are positive.

3. $\sqrt{26g^4h^7} \cdot \sqrt{39g^5h^{13}}$

4. $\sqrt[3]{36P^5Q^9} \cdot \sqrt[3]{21P^7Q^5}$

Simplify each quotient. Assume all variables are positive.

5. $\dfrac{\sqrt{96a^6b^9c^5}}{\sqrt{4a^8b^4c^{13}}}$

6. $\sqrt[3]{\dfrac{2j^8k^{11}}{128j^2k^4}}$

Algebra 2 Bellwork Tuesday, April 21, 2015 Answers

Simplify each radical. Use absolute value symbols where necessary.

1. $\sqrt[4]{324w^{16}x^{25}y^{35}}$

$3w^4x^6y^8\sqrt[4]{4xy^3}$

2. $\sqrt[5]{192b^{18}c^{30}d^{21}}$

$2b^3c^6d^4\sqrt[5]{6b^3d}$

Simplify each product. Assume all variables are positive.

3. $\sqrt{26g^4h^7} \cdot \sqrt{39g^5h^{13}}$

$13g^4h^{10}\sqrt{6g}$

4. $\sqrt[3]{36P^5Q^9} \cdot \sqrt[3]{21P^7Q^5}$

$3P^4Q^4\sqrt[3]{28Q^2}$

Simplify each quotient. Assume all variables are positive.

5. $\dfrac{\sqrt{96a^6b^9c^5}}{\sqrt{4a^8b^4c^{13}}}$

$\dfrac{2b^2\sqrt{6b}}{ac^4}$

6. $\sqrt[3]{\dfrac{2j^8k^{11}}{128j^2k^4}}$

$\dfrac{j^2k^2\sqrt[3]{k}}{4}$