

# Algebra 2 Bellwork Tuesday, February 23, 2016

Simplify each. Use absolute value symbols where necessary.

1.  $\sqrt{288m^{12}n^{23}p^{37}}$

2.  $\sqrt[3]{256g^{17}h^{41}k^5}$

3.  $\sqrt[9]{a^{18}b^{14}c^{29}}$

4. Find the original problem that gave the following simplified answers.

a)  $3x^3y^7\sqrt{x}$

b)  $2d^5eg^2\sqrt[4]{5d^3e^2}$

Simplify each. Don't give answers with rounded decimals (this means if necessary give fractional answers in reduced form).

5.  $(9x^8)^{-\frac{3}{2}}$

6.  $(2m^{-\frac{7}{2}})^4$

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Simplify each. Use absolute value symbols where necessary.

1.  $\sqrt{288m^{12}n^{23}p^{37}}$   
 $\wedge$   
 $144 \cdot 2$

$12m^6|n^{11}|p^{18}\sqrt{2np}$

2.  $\sqrt[3]{256g^{17}h^{41}k^5}$   
 $\wedge$   
 $128 \cdot 2$

$2g^2h^5\sqrt[7]{2g^3h^6k^5}$

3.  $\sqrt[9]{a^{18}b^{14}c^{29}}$

Answers

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

4. Find the original problem that gave the following simplified answers.

a)  $3x^3y^7\sqrt{x}$

b)  $2d^5eg^2\sqrt[4]{5d^3e^2}$

$\sqrt{9x^7y^{14}}$

$\sqrt[4]{80d^{23}e^6g^8}$

Simplify each. Don't give answers with rounded decimals (this means if necessary give fractional answers in reduced form).

5.  $(9x^8)^{-\frac{3}{2}}$

6.  $(2m^{-\frac{7}{2}})^4$

$= \frac{2^4}{m^{\frac{7}{2} \cdot 4}} =$

$\frac{16}{m^{14}}$

$\frac{1}{(\sqrt{9})^3}x^{8 \cdot \frac{3}{2}} = \frac{1}{27x^{12}}$