Algebra 2 Bellwork Wednesday, April 1, 2015

This is Radical Form: $\sqrt[8]{g^5}$ This is Exponential Form: $a^{\frac{6}{7}}$

Write each in radical form

1. $W^{\frac{1}{5}}$ 2. $B^{\frac{-4}{3}}$ 3. $C^{\frac{2}{9}}$ 4. $P^{2.8}$

5. Write each in exponential form:

a. $\sqrt[3]{G^5}$ b. $\sqrt[6]{R}$ c. $\sqrt{B^4}$

d. $\sqrt[5]{6a^4}$ e. $\sqrt[5]{(3c^2d)^{15}}$

6. Simplify each. Simplify means NO decimals in your answer!

a. $27^{\frac{2}{3}}$ b. $6^{\frac{3}{2}}$ c. $4^{\frac{-5}{2}}$

Algebra 2 Bellwork Wednesday, April 1, 2015 Answers

This is Radical Form: $\sqrt[8]{g^5}$ This is Exponential Form: $a^{\frac{6}{7}}$

Write each in radical form

1. $W^{\frac{1}{5}}$ $\sqrt[5]{W}$

2. $B^{\frac{-4}{3}} = \frac{1}{B^{4/3}} = \frac{1}{\sqrt[3]{B^4}}$

3. $C^{\frac{2}{9}}$ $\sqrt[9]{c^2}$

4. $P^{2.8}$ $2.8 = \frac{28}{10} = \frac{14}{5}$ $= \sqrt[5]{p^{14}}$

5. Write each in exponential form:

a. $\sqrt[3]{G^5}$ $G^{5/3}$

b. $\sqrt[6]{R}$ $R^{1/6}$

c. $\sqrt{B^4}$ $B^{4/2} = B^2$

d. $\sqrt[5]{6a^4}$ $(6a^4)^{1/5} = 6^{1/5}a^{4/5}$

e. $\sqrt[5]{(3c^2d)^{15}}$ $((3c^2d)^{15})^{1/5} = (3c^2d)^3 = 27c^6d^3$

6. Simplify each. Simplify means NO decimals in your answer!

a. $27^{\frac{2}{3}}$ $(\sqrt[3]{27})^2 = 9$

b. $6^{\frac{3}{2}}$ $\sqrt{6^3} = \sqrt{216}$

c. $4^{\frac{-5}{2}} = \frac{1}{(\sqrt{4})^5} = \frac{1}{2^5} = \frac{1}{32}$