Algebra 1 Bellwork Thursday, March 9, 2016

Simplify each. Make sure exponents aren't negative or zero.

1. $\frac{-3c^5d^{-7}}{e^{-2}g^0} =$

2. $\frac{6^{-2}j^{-3}}{2^{-3}k^{-1}} =$

3. $\left(\frac{4^{-2}a^4b^{-7}}{8c^{-2}}\right)^{-1} =$

Evaluate each expression for $a = -4$, $b = 6$, and $c = -2$. Give fractional answers in reduced form (no decimals)

4. $3a^{-2}b =$

5. $\frac{c^{-3}}{2a^{-1}} =$

6. $-b^{-2}c^2 =$

Algebra 1 Bellwork Thursday, March 9, 2016 Answers

Simplify each. Make sure exponents aren't negative or zero.

1. $\frac{-3c^5d^{-7}}{e^{-2}g^0} = \frac{-3c^5e^2}{d^7}$

2. $\frac{6^{-2}j^{-3}}{2^{-3}k^{-1}} = \frac{2^3k^1}{6^2j^3} = \frac{8k}{36j^3} = \frac{2k}{9j^3}$

3. $\left(\frac{4^{-2}a^4b^{-7}}{8c^{-2}}\right)^{-1} = \left(\frac{a^4c^2}{4^2b^78}\right)^{-1} = \left(\frac{a^4c^2}{128b^7}\right)^{-1} = \frac{128b^7}{a^4c^2}$ ($16 \cdot 8$)

Evaluate each expression for $a = -4$, $b = 6$, and $c = -2$. Give fractional answers in reduced form (no decimals)

4. $3a^{-2}b = \frac{9}{8}$

$= \frac{3b}{a^2} = \frac{3(6)}{(-4)^2} = \frac{18}{16}$

5. $\frac{c^{-3}}{2a^{-1}} = \frac{1}{4}$

$= \frac{a}{2c^3} = \frac{-4}{2(-2)^3} = \frac{-4}{2(-8)} = \frac{-4}{-16}$

6. $-b^{-2}c^2 = \frac{-1}{9}$

$= -1 \cdot b^{-2}c^2 = \frac{-1 \cdot c^2}{b^2} = \frac{-1(-2)^2}{6^2} = \frac{-1 \cdot 4}{36}$