

Foundations for College Algebra
University of North Georgia
Fall 2015
Quiz #5

Name: Key Date: October 14, 2015

Simplify. Show all work!

1. $(n^3)^3 \cdot 2n^{-2}$

$$\frac{n^9}{1} \cdot \frac{2}{n^2} = \boxed{2n^7}$$

2. $(2x^0y^2)^{-3} \cdot 2yx^3$

$$\frac{1}{(2 \cdot 1 \cdot y^2)^3} \cdot \frac{2yx^3}{1}$$
$$\frac{1}{8y^6} \cdot \frac{2yx^3}{1} = \boxed{\frac{x^3}{4y^5}}$$

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

$$= \frac{27a^9c^6b^2}{a^{-1}c^5} = \boxed{27a^{10}c b^2}$$