

# Foundations of College Algebra

Fall 2015

Quiz #89

Name: \_\_\_\_\_

Date: \_\_\_\_\_

*Key*

*October 21, 2015*

Simplify the expression.

1)  $\frac{19a^3b^9c^{11}}{abc} =$

$19a^2b^8c^{10}$

Simplify the expression. Write the result using positive exponents only.

2)  $\frac{x^4(x^{-8})^{-9}}{(x^{-2})^{-3}}$

$\frac{x^4 \cdot x^{72}}{x^6} = \frac{x^{76}}{x^6} = x^{70}$

3)  $(-5x^3y^{-4})(2x^{-1}y)$

$-10x^2y^{-3} = \frac{10x^2}{y^3}$

Multiply.

4)  $(x+9)(x^3+3x-8)$

$= x^4 + 3x^2 - 8x + 9x^3 + 27x - 72$

$= x^4 + 9x^3 + 3x^2 + 19x - 72$