

Name: Key
 Date: _____

5.4 – Dividing Polynomials Assignment

1) Simplify

a) $\frac{6x^2}{2x^1}$

$3x$

b) $\frac{-12y^5}{4y^3}$

$-3y^2$

c) $\frac{-21a^7}{-7a^1}$

$3a^6$

d) $\frac{18a^3b}{-9a^3}$

$-2b$

2) Simplify

a) $\frac{10m^5n^6}{5m^2n^3}$

$2m^3n^3$

b) $\frac{-40ab^4c^9}{-20ab^4c^1}$

$2c^8$

c) $-\frac{15x^8y^5}{10x^7y}$

$-\frac{3xy^4}{2}$

or $-\frac{3}{2}xy^4$

d) $\frac{16p^4r^3}{6p^4r^3}$

$\frac{8}{3}$

3) Simplify

a) $\frac{10x^4y}{5x^6y^2}$

$2x^{-2}y^{-1}$

$= \frac{2}{x^2y}$

b) $\frac{-20a^2b^3}{5a^5b^2}$

$-4a^{-3}b$

$= \frac{-4b}{a^3}$

c) $\frac{6a^{-3}b^{-2}c^{-1}}{-3a^6b^{-2}c^{-3}}$

$-2a^{-9}c^2$

$= \frac{-2c^2}{a^9}$

d) $\frac{-16x^{-1}z^2}{-8xz}$

$2x^{-2}z$

$= \frac{2z}{x^2}$