

Foundations for College Algebra

Fall 2017

Quiz #7

Name: Key

Simplify the following:

1.) $(8t - 3t^4 + 10t^2) - (3t^2 + 11t^4 - 7)$

$$8t - 3t^4 + 10t^2 - 3t^2 - 11t^4 + 7$$

$$\boxed{-14t^4 + 7t^2 + 8t + 7}$$

2.) $(2x^2)^{-4}$

$$2^{-4} \cdot x^{-8}$$

$$\frac{1}{2^4 x^8} = \boxed{\frac{1}{16x^8}}$$

3.) $\frac{s^{-1}}{4s^4}$

$$\boxed{\frac{1}{4s^5}}$$

4.) $\frac{(2pm^{-1}q^0)^{-4} \cdot 2m^{-1}p^3}{2pq^2}$

$$= \frac{2^{-4} p^{-4} m^4 \cdot 1 \cdot 2 m^{-1} p^3}{2pq^2}$$

$$= \frac{m^3}{2^4 p \cdot p \cdot q^2} = \boxed{\frac{m^3}{16p^2q^2}}$$