

Name: Key

Foundations for College Algebra

Fall 2017

Quiz #4 – M. Goodroe

1.) State the **Fundamental Principal of Fractions** and use it to re-write  $\frac{333}{450}$

$$\frac{a}{b} \cdot \frac{c}{c} = \frac{ac}{bc} = \frac{a}{b}$$

$$\frac{333}{450} = \frac{\boxed{9} \cdot 37}{\boxed{9} \cdot 50} = \frac{37}{50}$$

"1"

Simplify the following – Showing only one step per line in a logical and concise presentation!

Note: I am looking for adherence to the **Order of Operations** precisely.

$$2.) \left[ \frac{1}{6} \div (6) \right] + \frac{1}{6} - \frac{1}{6}(6) - \frac{1}{6}$$

$$\frac{1}{36} + \frac{1}{6} \left[ -\frac{1}{6}(6) \right] - \frac{1}{6}$$

$$\left[ \frac{1}{36} + \frac{1}{6} \right] - 1 - \frac{1}{6}$$

$$\left[ \frac{7}{36} - 1 \right] - \frac{1}{6}$$

$$\frac{7-36}{36} - \frac{1}{6}$$

$$\left[ \frac{29}{36} - \frac{1}{6} \right]$$

$$\left[ \frac{-29}{36} - \frac{1}{6} \right] = \boxed{\frac{-35}{36}}$$

$$3.) \frac{24}{\textcircled{1}\sqrt{9}}(7-5)^2$$

$$\textcircled{2} \left\{ \frac{24}{3} (7-5)^2 \right.$$

$$8 (7-5)^2$$

$$8 (2)^2$$

$$8 \cdot 4 = \boxed{32}$$

BONUS (four points)

$$\left[ \frac{5}{x} + \frac{1}{2} \right] \frac{y}{3}$$

$$\frac{10 + x}{2x} - \frac{y}{3}$$

$$\frac{30 + 3x - 2xy}{6x}$$