

Foundations for College Algebra
Spring 2016
Quiz #4

Name: Key Date: _____

SHOW ALL WORK (NEATLY) ON QUIZ!

Solve

1.) $4(-9 + \frac{a}{4} = -7)$ LCD: 4

$$-36 + a = -7$$

$$\boxed{a = 8}$$

CHECK (OPTIONAL)

$$-9 + \frac{8}{4} = -7$$

$$-9 + 2 = -7$$

$$-7 = -7 \checkmark$$

2. $35(\frac{1}{7}x + \frac{1}{5} = \frac{1}{5}x - \frac{1}{7})$ LCD: 35

$$5x + 7 = 7x - 5$$

$$12 = 2x$$

$$\boxed{6 = x}$$

$$\frac{1}{7} \cdot \frac{6}{1} + \frac{1}{5} = \frac{1}{5} \cdot \frac{6}{1} - \frac{1}{7}$$

$$\frac{6}{7} + \frac{1}{5} = \frac{6}{5} - \frac{1}{7}$$

$$\frac{30+7}{35} = \frac{42-5}{35}$$

$$\frac{37}{35} = \frac{37}{35} \checkmark$$

3. $5(2x - 1) - 2(3x) = 1$

$$10x - 5 - 6x = 1$$

$$4x - 5 = 1$$

$$4x = 6$$

$$x = \frac{6}{4}$$

$$x = \frac{3}{2}$$

$$5\left(2\left(\frac{3}{2}\right) - 1\right) - 2\left(3 \cdot \frac{3}{2}\right) = 1$$

$$5(3 - 1) - 2\left(\frac{9}{2}\right) = 1$$

$$5(2) - 9 = 1$$

$$10 - 9 = 1$$

$$1 = 1 \checkmark$$