

Foundations for College Algebra
Spring 2016
Quiz #4

Name: Key Date: _____

1. Use the chart below to place a check mark indicating which sets the item on the left is a member of.

	N	W	Z	Q	Q'	R
$\sqrt{25}$	✓	✓	✓	✓		✓
-0.0001				✓		✓
$\frac{8}{0}$						
-2			✓	✓		✓
$\sqrt{5.56}$				✓		✓

Note: Q' means the set of not Rational Numbers or Irrational!

Simplify completely

$$2. -\frac{60}{17} \div \frac{34}{31} = -\frac{60}{17} \cdot \frac{31}{34} = -\frac{930}{289}$$

$$3. \frac{\frac{11}{4} - \frac{5}{2}}{\frac{8}{7} + \frac{1}{6}} = \frac{\frac{11-10}{4}}{\frac{48+7}{42}} = \frac{\frac{1}{4}}{\frac{55}{42}} = \frac{1}{4} \cdot \frac{42}{55} = \frac{21}{110}$$

Evaluate the expression at the given replacement values.

$$4. -x^4; x = -\frac{9}{7}$$

$$-(-\frac{9}{7})^4 = -(\frac{9}{7})(-\frac{9}{7})(-\frac{9}{7})(-\frac{9}{7}) = -(\frac{81}{49})(-\frac{9}{7}) = -(\frac{729}{343})(-\frac{9}{7}) = \frac{6561}{2401}$$