MATH 34001 | Fundamental Concepts of Algebra | Spring 2015
MWF 11:00 | Dr. Kracht

Name: _____ Quiz Score: _____/20

Quiz 1: Friday, January 23, 2015

1. (12 pts) Complete each of the following definitions.

   (a) A integer n is said to be ***odd*** if

   (b) A set is said to be ***closed*** under a binary operation if

   (c) *(Complete the following using set notation.)*

   $\mathbb{Z} =$ _____

   (d) The number _____ is said to be the ***additive identity element*** of $\mathbb{Z}$ since

2. (2 pts) TRUE or FALSE: The number 0 is even.

3. (6 pts) State the properties of addition or multiplication of $\mathbb{N}$ illustrated by each of the following.

   (a) $13 + (5 + 92) = 13 + (92 + 5)$

   (b) Compute $13 \cdot 5 \cdot 92$

   (c) $(7 + 6) \cdot (5 + 92) = (7 + 6) \cdot 5 + (7 + 6) \cdot 92$