Name: _____ Date:

Course: _____ Nyack College

College Mathematics

Assessment #1

A. Directions: Find all the natural number factors of each number

(1) 36

(2) 50

(3) 110

(4) 25

(5) 207

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B. Directions: Determine whether each number is prime or composite.

(6) 89

(7) 83,572

(8) 629

(9) 76

(10) 31

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C. Directions: Write the prime factorization of each number

(11) 36

(12) 108

(13) 120

(14) 460

(15) 2700

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D. Directions: Use the prime factorization method to find greatest common factor (GCF)

(16) 84 and 140

(17) 315 and 90

(18) 275 and 132

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(19) 16, 28, and 44

(20) 765, 780, and 990

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E. Directions: Use the prime factorization method to find Least Common Multiple (LCM)

(21) 94 and 150

(22) 215 and 95

(23) 172 and 32

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(24) 16, 32, and 128

(25) 165, 80, and 90

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F. Directions: List the numbers in the set that belong to each set of numbers.

$$\left\{-5, -\frac{2}{3}, 0, \sqrt{2}, \frac{13}{4}, 5, 5.8\right\}$$

(26) Natural Numbers

(27) Whole Numbers

(28) Integers

(29) Rational Numbers

(30) Irrational Numbers

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G. Directions: Evaluate the following expressions:

(31) (-12) + (-8)

(32) (-15) - (-9)

(33) (-6) + [5 – (3 + 2)]

(34) $\frac{52}{-13}$

(35) $-8[4 + (7 - 8)]$

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H. Directions: Evaluate the following expressions:

(36) $\frac{5}{8} + \frac{3}{14}$

(37) $\frac{5}{8} - \frac{3}{14}$

(38) $\frac{14}{8} \times \frac{2}{7}$

(39) $\frac{14}{8} \div \frac{2}{7}$

(40) $\left(\frac{1}{3} \div \frac{2}{5}\right) + \frac{5}{6}$