Name: Carol Sosa Date: 10/14/20 Course: College Mathematics Nyack College

College Mathematics

Assessment #1

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

(1) 36

1,2,3,4,6,9,12,18,36

(2) 50

1,2,5,10,25,50

(3) 110

1,2,5,10,11,22,55,110

(4) 25

1,5,25

(5) 207

1,3,9,23,69,207

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

(6) 89

Prime

(7) 83,572

Composite

(8) 629

Composite

(9) 76

Composite

(10) 31

Prime

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C. Directions: Write the prime factorization of each number

(11) 36

2x2x3x3

(12) 108

2x2x3x3x3

(13) 120

2x2x2x3x5

(14) 460

2x2x5x23

(15) 2700

2x2x3x3x3x5x5

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

(16) 84 and 140

GCF= 28

(17) 315 and 90

GCF=45

(18) 275 and 132

GCF=11

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(19) 16, 28, and 44

GCF=4

(20) 765, 780, and 990

GCF=15

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

(21) 94 and 150

LCM=7050

(22) 215 and 95

LCM=4085

(23) 172 and 32

LCM=1376

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(24) 16, 32, and 128

LCM=128

(25) 165, 80, and 90

LCM=7920

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

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

(26) Natural Numbers

0,5,5.8

(27) Whole Numbers

0,5

(28) Integers

5.8

(29) Rational Numbers

13,4

(30) Irrational Numbers

-5, $-\frac{2}{3}$

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G. Directions: Evaluate the following expressions:

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

20

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

-6

(33) (-6) + [5 – (3 + 2)]

-6

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

$\log(100)$

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

-24

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H. Directions: Evaluate the following expressions:

(36) $^{5}_{8}+^{3}_{14}$

$47/56$

(37) $^{5}_{8}-^{3}_{14}$

23/56

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

1/2

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

49/8

(40) $({}^{1}_{3} \div {}^{2}_{5}) + {}^{5}_{6}$

5/3