



Math 6

UNIT 2 – Interactive Notebook 2-7 Least Common Multiple and Greatest Common Factor

Name:

Date:

Common Core Standards

CCSS.MATH.CONTENT.6.NS.B.4

Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

2-7 Least Common Multiple and Greatest Common Factor

Least Common Multiple		
	$LCM(4 \text{ and } 12) =$	
	Multiples of 4:	4, 8, 12, 16...
	Multiples of 12:	12, 24, 36, 48...
		LCM (4 and 12) = 12
Find the LCM Using Prime Factorization		
Step 1:	First use factor trees to find the prime factors of each number.	$4 = 2 \times 2$ $12 = 2 \times 2 \times 3$
Step 2:	Write each prime factor the greatest number of times it appears in any of the numbers. Then multiply the factors.	$2 \times 2 \times 3 = 12$ LCM (4 and 12) = 12
		LCM (4 and 12) = 12

2-7 Least Common Multiple and Greatest Common Factor

Greatest Common Factor		
	$GCF(4 \text{ and } 12) =$	
	List all the factors of 4:	1, 2, 4
	List all the factors of 12:	1, 2, 3, 4, 12
	Find the common factors:	1, 2, 4
	Choose the greatest common factor.	$GCF(4 \text{ and } 12) = 4$
Find the GCF Using Prime Factorization		
Step 1:	First use factor trees to find the prime factors of each number.	$4 = 2 \times 2$ $12 = 2 \times 2 \times 3$
Step 2:	Then multiply the prime factors that are common to both to find the GCF	$2 \times 2 = 4$
		$GCF(4 \text{ and } 12) = 4$

Problem 1:

LCM
(5 and 30)

Step 1:

Step 2:

Problem 2:

GCF
(16 and 64)

Step 1:

Step 2:

Problem 3:

LCM
(40 and 16)

Step 1:

Step 2:

Problem 4:

GCF
(14 and 343)

Step 1:

Step 2:

Task Cards

Match the pink card with blue card.

1.

LCM
(6 and 24)

a.

11

2.

LCM
(13 and 39)

b.

200

3.

GCF
(18 and 72)

c.

24

Task Cards

4.

Garry has two beepers red and blue. Blue beeper beeps every 25 second and red beeper beeps every 35 seconds. After how many seconds both beepers beeps at same time?

d.

9

5.

GCF
(44 and 11)

e.

75

6.

LCM
(40 and 50)

f.

175

Task Cards

7.

LCM
(15 and 25)

g.

5

8.

GCF
(24 and 36)

h.

39

9.

GCF
(35 and 25)

i.

6

ANSWER KEY

Problem 1 $LCM(5, 30) = 30$

Problem 2 $GCF(16, 64) = 16$

Problem 3 $LCM(40, 16) = 80$

Problem 4 $GCF(14, 343) = 7$

Task Cards

1. c.

2. h.

3. d.

4. f.

5. a.

6. b.

7. e.

8. i.

9. g.