

Lesson 3.1 ~ Prime Factorization

- Prime Factorization: _____
- Greatest Common Factor: _____
- Lowest Common Multiple: _____

Example #1: Determine the prime factors of 2646.

Example #2: Determine the greatest common factor of 126 and 144.

Example #3: Determine the least common multiple of 28, 42, and 63.

Name : _____

Prime Factor Tree

MS2

Draw a prime factor tree for each number.

1) 98

2) 70

3) 84

4) 50

5) 44

6) 54

Name : _____

Prime Factor Tree

MS3

Draw a prime factor tree for each number.

1) 80

2) 52

3) 72

4) 99

5) 60

6) 36

Name : _____

GCF/- Venn Diagram

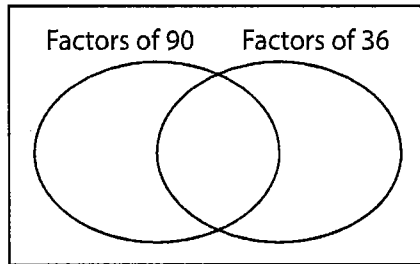
MS4

LCM

Find the greatest common factor for each pair of numbers using Venn diagram.

1) 90, 36

a) Complete the venn diagram.

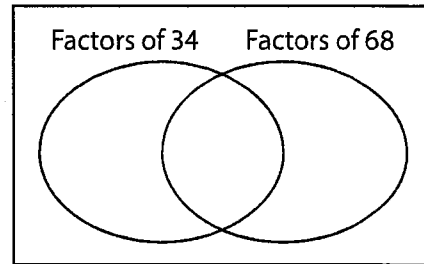


b) $LCM(90, 36) = \underline{\hspace{2cm}}$

c) $GCF(90, 36) = \underline{\hspace{2cm}}$

2) 34, 68

a) Complete the venn diagram.

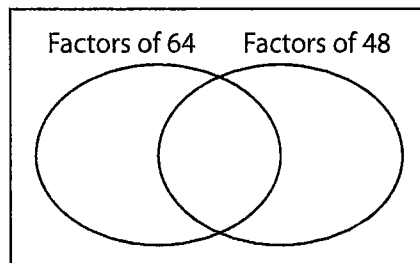


b) $LCM(34, 68) = \underline{\hspace{2cm}}$

c) $GCF(34, 68) = \underline{\hspace{2cm}}$

3) 64, 48

a) Complete the venn diagram.

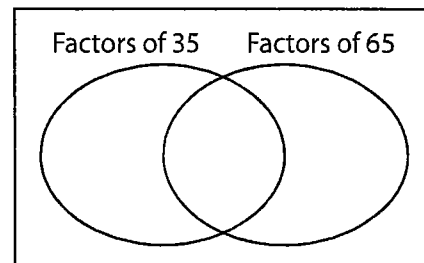


b) $LCM(64, 48) = \underline{\hspace{2cm}}$

c) $GCF(64, 48) = \underline{\hspace{2cm}}$

4) 35, 65

a) Complete the venn diagram.

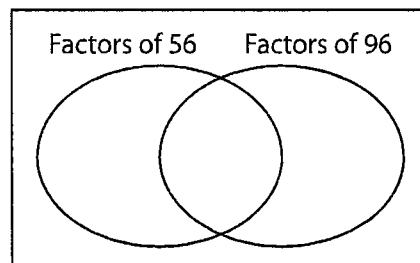


b) $LCM(35, 65) = \underline{\hspace{2cm}}$

c) $GCF(35, 65) = \underline{\hspace{2cm}}$

5) 56, 96

a) Complete the venn diagram.

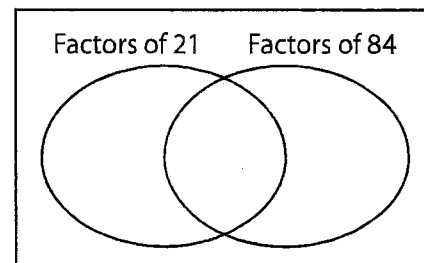


b) $LCM(56, 96) = \underline{\hspace{2cm}}$

c) $GCF(56, 96) = \underline{\hspace{2cm}}$

6) 21, 84

a) Complete the venn diagram.



b) $LCM(21, 84) = \underline{\hspace{2cm}}$

c) $GCF(21, 84) = \underline{\hspace{2cm}}$

Name : _____

Greatest Common Factor

MS1

Find the greatest common factor for each set of numbers.

1) 28, 22, 90

GCF(28, 22, 90) = _____

2) 42, 35, 21

GCF(42, 35, 21) = _____

3) 75, 45, 60

GCF(75, 45, 60) = _____

4) 36, 90, 54

GCF(36, 90, 54) = _____

5) 24, 84, 48

GCF(24, 84, 48) = _____

6) 12, 72, 18

GCF(12, 72, 18) = _____

7) 70, 14, 56

GCF(70, 14, 56) = _____

8) 32, 76, 60

GCF(32, 76, 60) = _____

9) 99, 42, 84

GCF(99, 42, 84) = _____

10) 80, 50, 40

GCF(80, 50, 40) = _____

Name : _____

Least Common Multiple

Sheet 1

Find the least common multiple of each set of numbers.

1) 6, 16, 8

$$\text{LCM}(6, 16, 8) = \underline{\hspace{2cm}}$$

2) 4, 12, 20

$$\text{LCM}(4, 12, 20) = \underline{\hspace{2cm}}$$

3) 36, 18, 9

$$\text{LCM}(36, 18, 9) = \underline{\hspace{2cm}}$$

4) 24, 72, 96

$$\text{LCM}(24, 72, 96) = \underline{\hspace{2cm}}$$

5) 24, 18, 30

$$\text{LCM}(24, 18, 30) = \underline{\hspace{2cm}}$$

6) 40, 20, 60

$$\text{LCM}(40, 20, 60) = \underline{\hspace{2cm}}$$

7) 27, 36, 90

$$\text{LCM}(27, 36, 90) = \underline{\hspace{2cm}}$$

8) 14, 8, 16

$$\text{LCM}(14, 8, 16) = \underline{\hspace{2cm}}$$

9) 15, 30, 45

$$\text{LCM}(15, 30, 45) = \underline{\hspace{2cm}}$$

10) 10, 4, 24

$$\text{LCM}(10, 4, 24) = \underline{\hspace{2cm}}$$