Name _____ Date _____

Greatest Common Factor

Greatest Common Factor (GCF): The common factor of two or more numbers that has the greatest value.
The GCF of 12 and 24 is 12.

Hint: The GCF will never be larger than the smallest number of the set.
The GCF of 4 and 4,000,000 is 4.

Find the GCF of each set of numbers.

1. 42 and 77

   7

2. 210 and 126

   42

3. 42, 77, 210, and 126

   7

4. 86, 129, and 215

   43

5. 17, 43, and 83

   1

6. 25, 30, and 50

   5

7. 30 and 75

   15

8. 27 and 12

   3

9. 19 and 95

   19

10. 33 and 180

    3

Name _____ Date _____

Multiples

Multiple: The product of a number and a whole number.
Some multiples of 12 are 12, 24, 36, and 48.

Common Multiple: A number that is a multiple of two or more numbers.
Some common multiples of 12 and 24 are 24, 48, and 72.

Least Common Multiple (LCM): The multiple common to two or more numbers with the least value.
The LCM of 12 and 24 is 24.

Follow the directions for each problem.

1. List the first 10 multiples of the number 5. 5, 10, 15, 20, 25, 30, 35, 40, 49, 50

2. List the first 10 multiples of the number 6. 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

3. List three common multiples of the numbers 5 and 6. 30, 60, 90

4. What is the LCM of the numbers 5 and 6? 30

5. List the first 10 multiples of the number 7. 7, 14, 21, 28, 35, 42, 49, 56, 63, 70

6. List the first 10 multiples of the number 14. 14, 28, 42, 56, 70, 84, 98, 112, 126, 140

7. List three common multiples of the numbers 7 and 14. 14, 28, 42

8. What is the LCM of the numbers 7 and 14? 14

Name _____ Date _____

Least Common Multiple

FACTORS AND FRACTIONS

A **least common multiple** is the multiple a pair or group of numbers have in common with the least value.

4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60
6: 6, 12, 18, 24, 30, 36, 42, 48, 54, 60
8: 8, 16, 24, 32, 40, 48, 56, 64

There is only one least common multiple for any group of numbers.

Find the least common multiple for each group of numbers.

1. 5, 8: 40
2. 7, 5: 35
3. 3, 8: 24
4. 9, 12, 6: 36
5. 15, 10, 20: 60
6. 12, 16: 48
7. 9, 3: 9
8. 4, 12: 12
9. 4, 6, 8: 24
10. 2, 6, 3: 6
11. 8, 9, 12: 72
12. 3, 7, 4: 84

Name _____ Date _____

Exponents

Natural Numbers and Decimals

An **exponent** next to a number is a short way of writing a multiplication problem in which a number is multiplied by itself. The exponent tells how many times the number appears in the multiplication problem.

$2 \times 2 = 2^2$

$2 \times 2 \times 2 \times 2 = 2^4$

We read a number with an exponent as (number) to the (exponent) power.

2^4 = two to the fourth power 2^2 = two to the second power

Write out the multiplication problem represented by each number and exponent. Solve.

1. $5^3 = 5 \cdot 5 \cdot 5 = 125$
2. $2^4 = 2 \cdot 2 \cdot 2 \cdot 2 = 16$
3. $3^4 = 3 \cdot 3 \cdot 3 \cdot 3 = 81$
4. $6^2 = 6 \cdot 6 = 36$
5. $8^3 = 8 \cdot 8 \cdot 8 = 512$
6. $9^2 = 9 \cdot 9 = 81$
7. $5^4 = 5 \cdot 5 \cdot 5 \cdot 5 = 625$
8. $7^3 = 7 \cdot 7 \cdot 7 = 343$
9. $4^3 = 4 \cdot 4 \cdot 4 = 64$
10. $10^3 = 10 \cdot 10 \cdot 10 = 1000$
11. $12^2 = 12 \cdot 12 = 144$
12. $11^3 = 11 \cdot 11 \cdot 11 = 1,331$
13. $1^{12} = 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 \times 1 = 1$
14. $4^4 = 4 \cdot 4 \cdot 4 \cdot 4 = 256$
15. $7^5 = 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 16,807$
16. $5^5 = 5 \times 5 \times 5 \times 5 \times 5 = 3,125$
17. $2^8 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 256$
18. $6^3 = 6 \cdot 6 \cdot 6 = 216$
19.
20. $3^5 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 = 243$
21. $6^4 = 6 \cdot 6 \cdot 6 \cdot 6 = 1,296$

Name _____

6 Exponents: Adding and Subtracting

When you add or subtract numbers with exponents, you must convert each number to standard form and then perform the operation.

$5^3 + 2^4 = 125 + 16 = 141$

$7^2 - 3^3 = 49 - 27 = 22$

Find the sums and differences.

1. $4^3 + 6^2 = 100$ $2^4 - 3^2 = 7$ $5^3 + 4^5 = 1149$ $7^3 - 8^2 = 279$
2. $9^2 + 2^5 = 113$ $5^3 - 2^2 = 121$ $8^3 + 6^3 = 728$ $9^4 - 7^3 = 6218$
3. $8^4 + 5^2 = 4121$ $6^4 - 1^2 = 1295$ $9^4 + 3^3 = 6588$ $2^6 - 3^2 = 55$
4. $6^2 + 7^2 = 85$ $4^5 - 3^4 = 943$ $8^4 + 7^4 = 6497$ $10^3 - 2^4 = 984$

Write true or false. If false, write the correct answer.

5. T $4^2 + 5^2 = 41$ F $5^3 - 2^2 = 123$ T $4^2 + 2^4 = 32$ F $8^4 - 6^2 = 4,070$
6. F $3^3 + 7^3 = 360$ T $4^3 - 4^2 = 48$ F $3^3 + 4^3 = 81$ T $7^5 - 8^1 = 16,799$
7. T $6^4 + 5^2 = 1,321$ F $6^4 - 5^2 = 1,174$ T $2^4 + 3^2 = 25$ F $8^4 - 8^2 = 4,034$
8. F $2^5 + 8^3 = 546$ T $8^3 - 7^3 = 169$ T $5^5 + 2^6 = 3,189$ T $9^3 - 8^3 = 217$

9. The intensity of sounds is expressed in decibels. A quiet sound has a decibel level of 20. A loud sound, like a rocket engine, has a decibel level that may be expressed as $5 \times 2^2 + 30 \times 2^2$. What is the decibel level of a rocket engine?

$= 5 \times 4 + 30 \times 4$

$= 20 + 120 = 140$ decibels

Name _____

7 Exponents: Multiplying and Dividing

When you multiply two exponential numbers that have the same base, keep the base and add the exponents. For example:

$4^2 \times 4^3 = 4^5 = 1{,}024$

This is the same as multiplying 4 x 4 x 4 x 4 x 4.

If you are dividing two exponential numbers with the same base, keep the base and subtract the exponents. For example, in this example you are dividing 512 by 64, which has a quotient of 8:

$8^3 \div 8^2 = 8^1 = 8$

If the bases are different, express each number in standard form, and then multiply or divide.

$6^3 \div 2^2 = 126 \div 4 = 54$ $\quad$ $3^2 \times 5^2 = 9 \times 25 = 225$

Find the product or quotient.

1. $2^3 \times 3^2 =$ 72 $\quad$ $5^2 \div 5^1 =$ 5 $\quad$ $4^4 \times 6^2 =$ 9216 $\quad$ $8^2 \div 2^2 =$ 16
2. $3^4 \times 7^3 =$ 27,783 $\quad$ $9^9 \div 9^7 =$ 81 $\quad$ $5^4 \times 4^1 =$ 2,500 $\quad$ $9^2 \div 3^2 =$ 9
3. $4^2 \times 4^3 =$ 1024 $\quad$ $2^5 \div 2^2 =$ 8 $\quad$ $1^5 \times 3^4 =$ 81 $\quad$ $4^3 \div 1^3 =$ 64
4. $8^2 \times 2^1 =$ 128 $\quad$ $6^3 \times 2^3 =$ 1728 $\quad$ $8^3 \times 5^2 =$ 12,800 $\quad$ $4^3 \div 2^4 =$ 4

Write the following numbers as the product or quotient of two numbers with exponents. They may have the same base number.

5. 64 $\quad$ 72 $\quad$ 1,024
6. 56 $\quad$ 2 $\quad$ 54
7. 3,125 $\quad$ 243 $\quad$ 9
8. In a basketball game the other night, the Indiana Pacers scored 108 points. Joan said this score could be expressed as $3^3 \times 2^2$. Was Joan correct?

Name _____

33 Factors and Multiples

Numbers that are multiplied together to create a new number are called the factors of that new number. For example, $5 \times 4 = 20$. Five and 4 are factors of 20. Two and 10 are also factors of 20 because $2 \times 10 = 20$. One and 20 are also factors, because $1 \times 20 = 20$.

All even numbers have a factor of 2.
All numbers ending in 5 have a factor of 5.
All numbers greater than 0 that end with 0 have factors of 2 and 5.

Here are the factors of some numbers:

6: 1, 2, 3, 6
12: 1, 2, 3, 4, 6, 12
14: 1, 2, 7, 14
15: 1, 3, 5, 15
21: 1, 3, 7, 21

The greatest common factor (GCF) of 6 and 12 is 6.
The GCF of 14 and 21 is 7.
The GCF of 6 and 15 is 3.

A **multiple** of a number is that number times another number. For example, the first five multiples of various numbers are:

2: 2, 4, 6, 8, 10 6: 6, 12, 18, 24, 30 12: 12, 24, 36, 48, 60

To find the least common multiple (LCM) of two numbers:

- Find the GCF of the numbers.
- Multiply the numbers together. Divide the product of the numbers by the GCF.

What is LCM of 15 and 12?

- Find the GCF of 15 and 12, which is 3.
- Multiply the numbers and divide by the GCF.
  $15 \times 12 = 180$; $180 \div 3 = 60$

Show the factors of these numbers.

1. 18 1, 2, 3, 6, 9, 18
   45 1, 3, 5, 9, 15, 45
2. 36 1, 2, 3, 4, 6, 9, 12, 18, 36
   49 1, 7, 49

List the first five multiples of these numbers.

3. 8 8, 16, 24, 32, 40
   9 9, 18, 27, 36, 45
4. 11 11, 22, 33, 44, 55
   20 20, 40, 60, 80, 100

Name _____

Prime and Composite Numbers

35

A **prime number** has two factors, itself and 1. Here are some prime numbers:
3 = 3 x 1 17 = 17 x 1 43 = 43 x 1

A composite number has more than two factors. Here are some composite numbers:
49 = 1 x 49 and 7 x 7 64 = 1 x 64, 2 x 32, 4 x 16, and 8 x 8

Since all even numbers have a factor of 2, every even number greater than 2 is a composite number.

All numbers that end in 5 have a factor of 5. Therefore all numbers that end with 5 and are greater than 5 are composite numbers.

The numbers 0 and 1 are neither prime nor composite. However, all numbers that end in 0 and are greater than 0 have factors of 2 and 5. Therefore, all numbers greater than 0 that end in 0 are composite numbers.

Tell whether each number is prime (P) or composite (C), and show the factors for each number.

1	7 P 1,7	15 C 1,3,5,15	8 C 1,2,4,8
2	32 C 1,2,4,8,16,32	37 P 1,37	18 C 1,2,3,6,9,18
3	56 C 1,2,4,7,8,14,28,56	70 C 1,2,5,7,10,14,35,70	24 C 1,2,3,4,6,8,12,24
4	111 P 1,111	81 C 1,3,9,27,81	35 C 1,5,7,35
5	83 P 1,83	49 C 1,7,49	19 P 1,19
6	47 P 1,47	96 C 1,2,3,4,6,8,12,16,24,32,48,96	51 C 1,3,17,51

Name _____ Date _____

Factors, Primes, and Composites

Factors and Fractions

A **factor** is a whole number that is multiplied by another whole number to equal a product.
Factors of 24: 1, 2, 3, 4, 6, 8, 12, and 24.

Prime: A natural number that has exactly two factors, the number itself and 1. Examples: 2, 3, and 5
Composite number: A natural number that has three or more factors. Examples: 4, 6, 8, and 9.
1 is neither prime nor composite.

P C

Identify each number as prime or composite. If the number is composite, give at least one factor of the number that is not one or the number.

1. 61 P
2. 16 C 2, 4, 8
3. 39 C 3, 13
4. 42 C 2, 3, 6, 7, 14, 21
5. 13 P
6. 12 C 2, 3, 4, 6

List the factors. Circle any factors that are also prime numbers. Use the back of the paper if more room is needed.

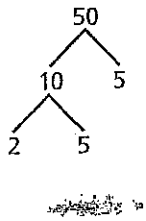
7. 42 1, (2), (3), 6, (7), 14, 21, 42
8. 77 1, (7), (11), 77
9. 210 1, (2), (3), (5), 6, (7), 10, 14, 15, 21, 30, 35, 42, 70, 105, 210
10. 126 1, (2), (3), 6, (7), 9, 14, 18, 21, 42, 63, 126
11. 50 1, (2), (5), 10, 25, 50
12. 200 1, (2), 4, (5), 8, 10, 20, 25, 40, 50, 100, 200
13. 143 1, (11), (13), 143
14. 36 1, (2), (3), 4, 6, 9, 12, 18, 36
15. 164 1, (2), 4, (41), 82, 164
16. 122 1, (2), (61), 122
17. 26 1, (2), (13), 26
18. 64 1, (2), 4, 8, 16, 32, 64
19. 360 1, (2), (3), 4, 5, 6, 8, 9, 10, 12, 15, 18, 20, 24, 30, 36, 40, 45, 60, 72, 90, 120, 180, 360
20. 234 1, (2), (3), 6, 9, 26, 39, 78, 117, 234
21. 48 1, (2), (3), 4, 6, 8, 12, 16, 24, 48

Name _____ Date _____

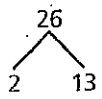
Prime Factorization

Factors and Fractions

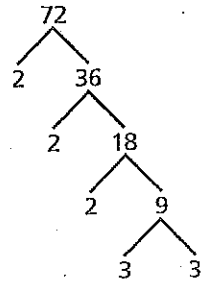
Prime Factorization: Expressing a number as a product of primes.



Therefore, $50 = 5 \times 5 \times 2$



Therefore, $26 = 2 \times 13$



Therefore, $72 = 2 \times 2 \times 2 \times 3 \times 3$

Find the prime factorization or state that the number is prime. Show your work on a separate peice of paper.

1) 66 = 2·3·11

2) 325 = 5·5·13

3) 23 Prime

4) 451 = 11·41

5) 494 = 2·13·19

6) 29 Prime

7) 674 = 2·337

8) 99 = 3·3·11

9) 225 = 5·5·5

10) 369 = 3·3·41

11) 184 = 2·2·2·23

12) 208 = 2·2·2·2·13

13) 493 = 17·29

14) 148 = 2·2·37

15) 293 Prime

16) 132 = 2·2·3·11

17) 75 = 3·5·5

18) 128 = 2·2·2·2·2·2·2

19) 529 = 23·23

20) 48 = 2·2·2·2·3

21) 68 = 2·2·17

Name _____ Date _____

Using Prime Factors to Find the GCF

Find the GCF for the numbers 180, 594, and 2,574.

$180 = 2 \times 2 \times 3 \times 3 \times 5$

$594 = 2 \times 3 \times 3 \times 3 \times 5$

$2{,}574 = 2 \times 3 \times 3 \times 11 \times 13$

Common Factors: 2, 3, 3

The GCF: $2 \times 3 \times 3 = 18$

Use prime factorization to find the GCF for each set of numbers.

1 245 and 105

$245 = 5 \cdot 7 \cdot 7$ $105 = 3 \cdot 5 \cdot 7$

GCF = 35

2 330, 495, and 825

$330 = 2 \cdot 3 \cdot 5 \cdot 11$

$495 = 3 \cdot 3 \cdot 5 \cdot 11$

$825 = 3 \cdot 5 \cdot 5 \cdot 11$

GCF = 165

3 792, 144, and 72

$792 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 11 \cdot 3$

$144 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 2$

$72 = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3$

GCF = 72

4 1,463 and 1,045

$1463 = 7 \cdot 11 \cdot 19$

$1045 = 5 \cdot 11 \cdot 19$

GCF = 209

5 899 and 1,015

$899 = 29 \cdot 31$

$1015 = 5 \cdot 5 \cdot 29$

GCF = 29

6 41, 67, and 97

primes

GCF = 1

Name _____ Date _____

Prime Factors and the LCM

Find the LCM for the numbers 140 and 1,078.

$140 = 2 \times 2 \times 7 \times 5$

$1{,}078 = 2 \times 7 \times 7 \times 11$

$2 \times 2 \times 7 \times 5$

$2 \times 7 \times 7 \times 11$

Factors: 2, 2, 5, 7, 7, 11

LCM: $2 \times 2 \times 5 \times 7 \times 7 \times 11 = 10{,}780$

Use prime factorization to find the LCM for each set of numbers.

1 35, 245, and 105

$35 = 5 \cdot 7$

$245 = 5 \cdot 7 \cdot 7$

$105 = 3 \cdot 5 \cdot 7$

$LCM = 3 \cdot 5 \cdot 7 \cdot 7 = 735$

2 40, 210, and 165

$40 = 2 \cdot 2 \cdot 2 \cdot 5$

$210 = 2 \cdot 3 \cdot 5 \cdot 7$

$165 = 3 \cdot 5 \cdot 11$

$LCM = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 \cdot 7 \cdot 11 = 9240$

3 30, 99, and 425

$30 = 2 \cdot 3 \cdot 5$

$99 = 3 \cdot 3 \cdot 11$

$425 = 5 \cdot 5 \cdot 17$

$LCM = 2 \cdot 3 \cdot 3 \cdot 5 \cdot 5 \cdot 11 \cdot 17 = 84{,}150$

4 46, 69, and 115

$46 = 2 \cdot 23$

$69 = 3 \cdot 23$

$115 = 5 \cdot 23$

$LCM = 2 \cdot 3 \cdot 5 \cdot 23 = 690$

5 343, 125, and 1,225

$343 = 7 \cdot 7 \cdot 7$

$125 = 5 \cdot 5 \cdot 5$

$1225 = 5 \cdot 5 \cdot 7 \cdot 7$

$LCM = 5 \cdot 5 \cdot 5 \cdot 7 \cdot 7 \cdot 7 = 42{,}875$

6 315, 561, and 5,049

$315 = 3 \cdot 3 \cdot 5 \cdot 7$

$5049 = 3 \cdot 3 \cdot 3 \cdot 11 \cdot 17$

$561 = 3 \cdot 11 \cdot 17$

$LCM = 3 \cdot 3 \cdot 3 \cdot 5 \cdot 7 \cdot 11 \cdot 17 = 176{,}715$

7 If you have three prime numbers, then what would be the LCM? Explain your reasoning and give an example.

a, b, c

$LCM = a \cdot b \cdot c$ because

no common factors (other than 1)

eg. 2, 3, 5 LCM = 30

Name _____

40 Factors

A factor of a number is a whole number whose product, when multiplied by another factor, is the original number.

Seven and 3 are factors of 21 because 7 x 3 = 21.
One and 21 are factors of 21 because 1 x 21 = 21.

The factors of 60 are 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, and 60.

60 = 1 x 60
60 = 2 x 30
60 = 3 x 20
60 = 4 x 15
60 = 5 x 12
60 = 6 x 10

Find the factors.

1. 27 1, 3, 9, 27
   100 1, 2, 4, 5, 10, 20, 25, 50, 100
2. 65 1, 5, 13, 65
   68 1, 2, 4, 17, 34, 68
3. 80 1, 2, 4, 5, 8, 10, 16, 20, 40, 80
   155 1, 5, 31, 155
4. 95 1, 5, 19, 95
   180 1, 2, 3, 4, 5, 6, 9, 10, 12, 15, 18, 20, 30, 36, 45, 60, 90, 180
5. 110 1, 2, 5, 10, 11, 22, 55, 110
   252 1, 2, 3, 4, 6, 7, 9, 12, 14, 18, 21, 28, 36, 42, 63, 84, 126, 252
6. 152 1, 2, 4, 8, 19, 38, 76, 152
   218 1, 2, 109, 218
7. 49 1, 7, 49
   64 1, 2, 4, 8, 16, 32, 64
8. 80 1, 2, 4, 5, 8, 10, 16, 20, 40, 80
   140 1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140
9. I am thinking of an odd number that has 3 factors other than itself and 1, none of which is higher than 7. If the number is less than 350, what is the number?

   Possible factors less than or equal to 7: 2, 3, 4, 5, 6, 7
   odd ⇒ all 3 are odd → 3 · 5 · 7 = 105

Name _____

41 Greatest Common Factor

The greatest common factor (GCF) is the largest factor of two or more numbers.

To find the greatest common factor of 15, 24, and 30:
The factors of 15 are 1, **3**, 5, and 15.
The factors of 24 are 1, 2, **3**, 4, 6, 8, 12, and 24.
The factors of 30 are 1, 2, **3**, 5, 6, 10, 15, and 30.

The largest factor all three numbers share is 3.
The greatest common factor of 15, 24, and 30 is 3.

Find the greatest common factor.

1. 8, 12, 20 4 — 12, 18, 32, 36 2
2. 50, 100, 150 50 — 200, 250, 300, 350 50
3. 62, 66, 70 2 — 120, 124, 128, 132 4
4. 18, 25, 32 1 — 8, 16, 24, 32 8

For each given factor, find two or more numbers that share the factor.

5. 2 — 3
6. 4 — 6
7. 13 — 9
8. 11 — 16

9. Tina has 48 chocolates, 60 caramels, and 72 peppermints to make gift boxes of candy. Each gift box will have one type of candy, and each box will have an equal number of pieces of candy. How many pieces of candy can she put in each box if she makes the largest possible gift boxes?

p.70

① 3 5 $8 = 2^3$

LCM = $2^3 \cdot 3 \cdot 5$

10 12 15 16

2 5 2 6 3 5 2 8

$= 2 \cdot 5$ 2 3 $= 3 \cdot 5$ 2 4

$= 2^2 \cdot 3$ 2 2

LCM = $2^4 \cdot 3 \cdot 5$ $= 2^4$

2 5 10 15

2 5 3 5

LCM = $2 \cdot 3 \cdot 5$

② $9 = 3^2$ $12 = 2^2 \cdot 3$ $15 = 3 \cdot 5$

LCM = $2^2 \cdot 3^2 \cdot 5$

$8 = 2^3$ $9 = 3^2$ $10 = 2 \cdot 5$ $12 = 2^2 \cdot 3$

LCM = $2^3 \cdot 3^2 \cdot 5$

$10 = 2 \cdot 5$ $20 = 2^2 \cdot 5$ $30 = 2 \cdot 3 \cdot 5$ $40 = 2^3 \cdot 5$

LCM = $2^3 \cdot 3 \cdot 5$

③ 7 $9 = 3^2$ $10 = 2 \cdot 5$

LCM = $2 \cdot 3^2 \cdot 5 \cdot 7$

$4 = 2^2$ $8 = 2^3$ $12 = 2^2 \cdot 3$ $16 = 2^4$

LCM = $2^4 \cdot 3$

2 3 $4 = 2^2$ 5 $6 = 2 \cdot 3$

LCM = $2^2 \cdot 3 \cdot 5$

④ $10 = 2 \cdot 5$ $12 = 2^2 \cdot 3$ $14 = 2 \cdot 7$

LCM = $2^2 \cdot 3 \cdot 5 \cdot 7$

$6 = 2 \cdot 3$ $9 = 3^2$ $12 = 2^2 \cdot 3$ $15 = 3 \cdot 5$

LCM = $2^2 \cdot 3^2 \cdot 5$

$4 = 2^2$ $8 = 2^3$ $16 = 2^4$ $20 = 2^2 \cdot 5$ $24 = 2^3 \cdot 3$

LCM = $2^4 \cdot 3 \cdot 5$

Name _____

43 Least Common Multiple

The least common multiple (LCM) is the smallest multiple that is shared by two or more numbers.

To find the least common multiple of 2, 4, 6, and 8:
2—2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, **24**
4—4, 8, 12, 16, 20, **24**
6—6, 12, 18, **24**
8—8, 16, **24**

The least common multiple is 24.

Find the least common multiple. answers on facing page

1	3, 5, 8	10, 12, 15, 16	2, 5, 10, 15
2	9, 12, 15	8, 9, 10, 12	10, 20, 30, 40
3	7, 9, 10	4, 8, 12, 16	2, 3, 4, 5, 6
4	10, 12, 14	6, 9, 12, 15	4, 8, 16, 20, 24

Find two numbers whose least common multiple is the number given.

5	32	40	25
6	18	24	45
7	20	30	36
8	10	60	72

9 Find four different numbers whose least common multiple is 36.