

# Common Multiples and Least Common Multiple

A multiple of a number is a product of a given whole number and another whole number. The first four multiples of 3 are 3, 6, 9, and 12.

A least common multiple (LCM) is the least number that is a common multiple of two or more numbers.

Find the least common multiple of 4 and 6.

4 XXXX	6 XXXXXX	Are there the same number of X's in each column? No. Since the 1st column has fewer, add another set of 4 X's.
4 XXXX XXXX	6 XXXXXX	Are there the same number of X's in each column? No. Since the 2nd column has fewer, add another set of 6 X's.
4 XXXX XXXX	6 XXXXXX XXXXXX	Are there the same number of X's in each column? No. Since the 1st column has fewer, add another set of 4 X's.
4 XXXX XXXX XXXX	6 XXXXXX XXXXXX	Are there the same number of X's in each column? Yes. Since the columns are equal, the number of X's is the LCM. The LCM = 12.

Find the least common multiple of each number pair.

1. 2 and 3 \_\_\_\_\_ 2. 6 and 9 \_\_\_\_\_ 3. 5 and 6 \_\_\_\_\_ 4. 8 and 3 \_\_\_\_\_

5. Can the LCM of 9 and 17 be less than 17? Explain.

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Name \_\_\_\_\_

# Common Multiples and Least Common Multiple

Find the LCM of each pair of numbers.

1. 3 and 6 \_\_\_\_\_
2. 7 and 10 \_\_\_\_\_
3. 8 and 12 \_\_\_\_\_
4. 2 and 5 \_\_\_\_\_
5. 4 and 6 \_\_\_\_\_
6. 3 and 4 \_\_\_\_\_
7. 5 and 8 \_\_\_\_\_
8. 2 and 9 \_\_\_\_\_
9. 6 and 7 \_\_\_\_\_
10. 4 and 7 \_\_\_\_\_
11. 5 and 20 \_\_\_\_\_
12. 6 and 12 \_\_\_\_\_

**13.** Rosario is buying pens for school. Blue pens are sold in packages of 6. Black pens are sold in packages of 3, and green pens are sold in packages of 2. What is the least number of pens she can buy to have equal numbers of pens in each color?

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**14.** A punch recipe calls for equal amounts of pineapple juice and orange juice. Pineapple juice comes in 6-ounce cans and orange juice comes in 10-ounce cans. What is the least amount of each kind of juice that can be mixed without having any left over?

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**15.** Dawn ordered 4 pizzas each costing between 8 and 12 dollars. What is a reasonable total cost of all 4 pizzas?

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|--------------------------------|--------------------------------|
| <b>A</b> Less than \$24        | <b>C</b> Between \$32 and \$48 |
| <b>B</b> Between \$12 and \$24 | <b>D</b> About \$70            |

**16.** Why is 35 the LCM of 7 and 5?

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