

Name: _____

Date: _____

Least Common Multiple (LCM)

The least common multiple is the smallest common multiple that is **NOT** zero.

Find the least common multiple of 4 and 6

Step 1: list the multiples of 4 ----- 0, 4, 8, 12, 16, 20, 24, 28, 32, 36

Step 2: list the multiples of 6 ----- 0, 6, 12, 18, 24, 30, 36

Step 3: list the common multiples ----- 0, 12, 24, 36

Step 4: write the least common multiple: -----12

Examples

List the first six multiples of 8 = 0, 8, 16, 24, 32, 40

List the first six multiples of 25 = 0, 25, 50, 75, 100, 125

List the first six multiples of 100 = 0, 100, 200, 300, 400, 500

Find the first six multiples of the following numbers. **Start with zero**

a) 7 = __, __, __, __, __, __

b) 9 = __, __, __, __, __, __

c) 20 = __, __, __, __, __, __

d) 50 = __, __, __, __, __, __

e) 100 = __, __, __, __, __, __

Find the least common multiple for each pair.

Examples

6 and 10

List the multiples of 6 = 0, 6, 12, 18, 24, 30,

List the multiples of 10 = 0, 10, 20, 30, 40, 50

List the common multiples = 0, 30

Write the least common multiple = 30

2 and 3 and 4

List the multiples of 2 = 0, 2, 4, 6, 8, 10, 12, 14

List the multiples of 3 = 0, 3, 6, 9, 12, 15, 18

List the multiples of 4 = 0, 4, 8, 12, 16, 20, 24, 28

List the common multiples = 0, 12

Write the least common multiple = 12

Find the least common multiple for each pair

f) 6 and 9 _____

g) 10 and 15 _____

h) 5 and 25 _____

i) 15 and 20 _____

j) 25 and 100 _____

k) 3 and 6 and 9 _____

l) 5 and 6 and 10 _____

Problem Solving

m) Mike sells balloons at the Community Day Festival. He wants to have the same number of balloons and strings. There are 8 balloons in one package. There are 10 strings in one package. He must buy full packages. What is the smallest number of balloons must buy? How many packages is this? _____

n) Steve, Andrew, and Joellyn are hiking the Willow Trail. There are rest stops every kilometer. Steve stops every 3 kilometers. Andrew stops every 5 kilometers. Joellyn stops every 8 kilometers. What is the first rest stop they will all stop at together? _____

o) Michael, Tony, and Jerry are hiking the Northside Trail. There are rest stops every kilometer. Michael stops every 5 kilometers. Tony stops every 6 kilometers. Jerry stops every 10 kilometers. What is the first rest stop they will all stop at together? _____