

Name _____ Date _____

Least Common Multiple

Find the LCM of 6 and 8.

Different Ways to Find the LCM

You can make a list.

Step 1 List some multiples of 6 and 8.
Circle all of the common multiples.

6: 6, 12, 18, 24, 30, 36, 42, 48

8: 8, 16, 24, 32, 40, 48

Step 2 Identify the least common multiple.

24

The LCM of 6 and 8 is 24.

You can use prime factorization.

Step 1 Write the prime factorization of 6 and 8, using exponents.

$$6 = 2 \times 3$$

$$8 = 2^3$$

Step 2 For each of the two different prime factors, circle the greatest power.

$$2 \times 3$$

$$2^3$$

Step 3 The product of the greatest powers of the prime factors is the LCM.

$$\text{LCM} = 2^3 \times 3 =$$

$$2 \times 2 \times 2 \times 3 = 24$$

Use a list or prime factorization to find the LCM of each pair of numbers.

1. 7, 8

2. 6, 20

3. 9, 15

4. 12, 16

5. 14, 24

6. 5, 13

7. 18, 30

8. 8, 10

9. 13, 14

10. 15, 18

11. 2, 3, 5

12. 2, 5, 9
