Name _____

Least Common Multiple

R 4-6

Find the least common multiple of 3 and 4. You can find the LCM of two or more numbers by listing their multiples and finding their common multiples. The least of these is the least common multiple (LCM).

Multiples of 3:	3	6	9	**12**	15	18	21	**24**	27
	3×1	3×2	3×3	3×4	3×5	3×6	3×7	3×8	3×9
Multiples of 4:	4	8	**12**	16	20	**24**	28	32	36
	4×1	4×2	4×3	4×4	4×5	4×6	4×7	4×8	4×9

The LCM of 3 and 4 is 12.

You can find the LCM of large numbers by using prime factorization.
Find the LCM of 18 and 60.

$18 = 2 \times 3 \times 3$
$60 = 2 \times 2 \times 3 \times 5$
$\text{LCM} = 2 \times 2 \times 3 \times 3 \times 5$
$\text{LCM} = 180$

Write each prime factorization, aligning common factors.

Write the product as shown, using each common factor once and each other factor once. Multiply.

The LCM of 18 and 60 is 180.

Find the least common multiple (LCM).

1. 4, 16 _____

2. 5, 12 _____

3. 10, 18 _____

4. 20, 35 _____

5. 2, 3, 6 _____

6. 2, 4, 5 _____

7. 6, 8, 12 _____

8. 4, 8, 16 _____

9. 3, 9, 12 _____

10. 16, 24 _____

11. 15, 20 _____

12. 3, 6, 14 _____