

Name: _____ Date: _____

Lowest Common Multiple (LCM)

Q1. Find LCM of 28 and 126.

Sol.

Q2. Find the LCM of 25 and 85 by prime factorization method.

Sol.

Q3. What is the least common multiple that is a multiple of 48, 72 and 108?

Sol.

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Lowest Common Multiple (LCM)

Q1. Find LCM of 28 and 126.

Sol.

2	28, 126
2	14, 63
3	7, 63
3	7, 21
7	7, 7
	1, 1

$$\text{LCM} = 2 \times 2 \times 3 \times 3 \times 7 = 252$$

Q2. Find the LCM of 25 and 85 by prime factorization method.

Sol.

5	25
5	5
	1

5	85
17	17
	1

$$\text{Prime factor of } 25 = 5^2$$

$$\text{Prime factor of } 85 = 5 \times 17$$

$$\text{LCM} = 5 \times 5 \times 17 = 425$$

Q3. What is the least common multiple that is a multiple of 48, 72 and 108?

Sol.

2	48, 72, 108
2	24, 36, 54
2	12, 18, 27
2	6, 9, 27
3	3, 9, 27
3	1, 3, 9
3	1, 1, 3
	1, 1, 1

$$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 = 432$$