

LESSON 14

Least Common Multiple (By Sets Of Multiples)

The least common multiple of a pair of numbers is the smallest multiple that is divisible by both numbers.

The least common multiple of 4 and 6 is 12 since:

$$4 \overline{)12} \quad \text{and} \quad 6 \overline{)12}$$

12 is the smallest or least common multiple of (4, 6)

$$\text{LCM of } (4, 6) = 12$$

Example: Find the least common multiple of 4 and 5.

Solution: List the multiples of both numbers until the same multiple appears in both lists.

4	5	4	5
		8	10
		12	15
		16	20
		20	*

Note: $4 \overline{)20}$ and $5 \overline{)20}$

$$\text{LCM of } (4, 5) = 20$$

Find The Least Common Multiple (LCM)

10	15
	*

4	6
	*

20	30
	*

14	21
	*

24	32
	*

15	20
	*

21	28
	*

75	100
	*

6	10
	*
	*

12	20
	*
	*

9	15
	*
	*

18	30
	*
	*

Find The Least Common Multiple (LCM)

6	8
	*

9	12
	*

12	16
	*

18	24
	*

6	12
	*
	*

9	18
	*
	*

10	20
	*
	*

25	50
	*
	*

8	10
	*

12	15
	*

16	20
	*

20	25
	*

Find The Least Common Multiple (LCM)

8	12
	*

6	9
	*

16	24
	*

12	18
	*

10	12
	*

5	6
	*

15	18
	*

25	30
	*

6	14
	*
	*
	*
	*

9	21
	*
	*
	*
	*

3	7
	*
	*
	*
	*

12	28
	*
	*
	*
	*