

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
20	30
30	*

4	6
8	12
12	*

20	30
40	60
60	*

14	21
28	42
42	*

24	32
48	64
72	96
96	*

15	20
30	40
45	60
60	*

21	28
42	56
63	84
84	*

75	100
150	200
225	300
300	*

6	10
12	20
18	30
24	*
30	*

12	20
24	40
36	60
48	*
60	*

9	15
18	30
27	45
36	*
45	*

18	30
36	60
54	90
72	*
90	*

Find The Least Common Multiple (LCM)

6	8
12	16
18	24
24	*

9	12
18	24
27	36
36	*

12	16
24	32
36	48
48	*

18	24
36	48
54	72
72	*

6	12
12	24
18	*
24	*

9	18
18	36
27	*
36	*

10	20
20	40
30	*
40	*

25	50
50	100
75	*
100	*

8	10
16	20
24	30
32	40
40	*

12	15
24	30
36	45
48	60
60	*

16	20
32	40
48	60
64	80
80	*

20	25
40	50
60	75
80	100
100	*

Find The Least Common Multiple (LCM)

8	12
16	24
24	*

6	9
12	18
18	*

16	24
32	48
48	*

12	18
24	36
36	*

10	12
20	24
30	36
40	48
50	60
60	*

5	6
10	12
15	18
20	24
25	30
30	*

15	18
30	36
45	54
60	72
75	90
90	*

25	30
50	60
75	90
100	120
125	150
150	*

6	14
12	28
18	42
24	*
30	*
36	*
42	*

9	21
18	42
27	63
36	*
45	*
54	*
63	*

3	7
6	14
9	21
12	*
15	*
18	*
21	*

12	28
24	56
36	84
48	*
60	*
72	*
84	*