

## Exercise 10 (E)

1. Find the LCM of the given numbers by listing method. (upto first three multiples).

a) 2 and 6

Multiples of 2 = 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Multiples of 6 = 6, 12, 18

Here, 6 is the first common multiple of 2 and 6  
So, ~~the~~ LCM of 2 and 6 is 6

b) 4 and 12

Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36

Multiples of 12 = 12, 24, 36

Here, 12 is the first common multiple of 4 and 12

So, LCM of 4 and 12 is 12

c) 5 and 3

Multiples of 5 = 5, 10, 15, 20, 25, 30, 35, 40, 45

Multiples of 3 = 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45

Here, 15 is the first common multiple of 5 and 3

So, LCM of 5 and 3 is 15.

d) 3 and 9

Multiples of 3 = 3, 6, 9, 12, 15, 18, 21, 24, 27

Multiples of 9 = 9, 18, 27

Here, 9 is the first common multiple of 3 and 9

So, the LCM of 3 and 9 is 9

e) 10 and 20

Multiples of 10 = 10, 20, 30, 40, 50, 60

Multiples of 20 = 20, 40, 60

Here, 20 is the first common multiple of 10 and 20.

So, the LCM of 10 and 20 is 20

f) 6, 4

Multiples of 6 = 6, 12, 18, 24, 30, 36

Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36

Here, 12 is the first common multiple of 6 and 4.

So, the LCM of 6 and 4 is 12

g) 4, 18

Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108

Multiples of 18 = 18, 36, 54, 72, 90, 108

Here, 36 is the first common multiple of 4 and 18

So, the LCM of 4 and 18 is 36.

h) 4 and 6

Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36

Multiples of 6 = 6, 12, 18, 24, 30, 36

Here, 12 is the first common multiple of 4 and 6

So, the LCM of 4 and 6 is 12.

i) 16, 8

Multiples of 16 - (16), (32), (48)

Multiples of 8 - 8, (16), 24, (32), 40, (48).

Here, 16 is the first common multiple of 16 and 8

So, the LCM of 16 and 8 is 16.

ii) 9, 12

Multiples of 12 = 12, 24, (36), 48, 60, (72), 84, 96, (108).

Multiples of 9 = 9, 18, 27, (36), 45, 54, 63, (72), 81, 90, 99, (108).

Here, 36 is the first common multiple of 9 and 12

So, the LCM of 9 and 12 is 36