

Exercise - 10 (E)

3. Find the LCM of the given numbers by common division method.

(a) 6, 36

$$\begin{array}{r|l} 3 & 6, 36 \\ \hline 2 & 2, 12 \\ \hline 3 & 1, 6 \\ \hline & 1, 2 \end{array}$$

So, LCM of ~~20~~ and ~~6~~ and 36 is $3 \times 2 \times 3 \times 2 = 36$

(b) ~~8~~ 25, 10

$$\begin{array}{r|l} 5 & 25, 10 \\ \hline & 5, 2 \end{array}$$

So, LCM of 25 and 10 is $5 \times 5 \times 2 = 50$.

(c) 45, 27

$$\begin{array}{r|l} 3 & 45, 27 \\ \hline 3 & 15, 9 \\ \hline & 5, 3 \end{array}$$

So, the LCM of 45 and 27 is
 $3 \times 3 \times 5 \times 3 = 135$

(d) 42, 49

$$\begin{array}{r|l} 7 & 42, 49 \\ \hline 3 & 6, 7 \\ \hline & 2, 7 \end{array}$$

So, the LCM of 42 and 49 is
 $7 \times 3 \times 2 \times 7 = 294$.

(e) 32, 64

$$\begin{array}{r|l} 2 & 32, 64 \\ \hline 2 & 16, 32 \\ \hline 2 & 8, 16 \\ \hline 2 & 4, 8 \\ \hline 2 & 2, 4 \\ \hline & 1, 2 \end{array}$$

So, the LCM of 32 and 64 is
 $2 \times 2 \times 2 \times 2 \times 2 \times 1 \times 2 = 64$.

(f) 18, 27

3	18, 27
3	6, 9
	2, 3

So, LCM of 18 and 27 is $3 \times 3 \times 3 \times 2 = 54$.

(g) 36, 42

2	36, 42
3	18, 21
3	6, 7
	2, 7

So, LCM of 36 and 42 is $2 \times 3 \times 3 \times 2 \times 7 = 252$.

How

(h) 15, 64

2	15, 64
3	15, 32
5	5, 32
	1, 32

So, the LCM of 15 and 64 is $2 \times 3 \times 5 \times 1 \times 32 = 960$

(i) 28, 32

2	28, 32
2	14, 16
2	7, 8
2	7, 4
2	7, 2
	7, 1

So, the LCM of 28 and 32 is $2 \times 2 \times 2 \times 2 \times 7 \times 1 = 224$.

(j) 27, 81

3	27, 81
3	9, 27
3	3, 9
	1, 3

So, the LCM of 27 and 81 is $3 \times 3 \times 3 \times 1 \times 3 = 81$.