



### Exercise 2E

Q1

**Answer :**

The given numbers are 42 and 63.

We have:

$$7 \overline{) 42, 63}$$

$$3 \overline{) 6, 9}$$

$$3 \overline{) 2, 3}$$

$$2 \overline{) 2, 1}$$

$$1, 1$$

$$\begin{aligned} \therefore \text{LCM} &= 7 \times 3 \times 3 \times 2 \times 1 \\ &= 126 \end{aligned}$$

Q2

**Answer :**

The given numbers are 60 and 75.

We have:

$$3 \overline{) 60, 75}$$

$$5 \overline{) 20, 25}$$

$$5 \overline{) 4, 5}$$

$$2 \overline{) 4, 1}$$

$$2 \overline{) 2, 1}$$

$$1, 1$$

$$\begin{aligned}\therefore \text{LCM} &= 3 \times 5 \times 5 \times 2 \times 2 \\ &= 300\end{aligned}$$

Q3

**Answer :**

The given numbers are 12, 18 and 20.

We have:

$$2 \overline{) 12, 18, 20}$$

$$2 \overline{) 6, 9, 10}$$

$$3 \overline{) 3, 9, 5}$$

$$3 \overline{) 1, 3, 5}$$

$$5 \overline{) 1, 1, 5}$$

$$1, 1, 1$$

$$\begin{aligned}\therefore \text{LCM} &= 2 \times 2 \times 3 \times 3 \times 5 \\ &= 180\end{aligned}$$

Q4

**Answer :**

The given numbers are 36, 60 and 72.

We have:

$$2 \overline{) 36, 60, 72}$$

$$2 \overline{) 36, 40, 12}$$

$$2 \overline{) 18, 30, 36}$$

$$3 \overline{) 9, 15, 18}$$

$$3 \overline{) 3, 5, 6}$$

$$5 \overline{) 1, 5, 2}$$

$$2 \overline{) 1, 1, 2}$$

$$1, 1, 1$$

$$\begin{aligned}\therefore \text{LCM} &= 2 \times 2 \times 2 \times 3 \times 3 \times 5 \\ &= 360\end{aligned}$$

Q5

**Answer :**

The given numbers are 36, 40 and 126.

We have:

$$2 \overline{) 36, 40, 126}$$

$$3 \overline{) 18, 20, 63}$$

$$3 \overline{) 6, 20, 21}$$

$$2 \overline{) 2, 20, 7}$$

$$2 \overline{) 1, 10, 7}$$

$$5 \overline{) 1, 5, 7}$$

$$7 \overline{) 1, 1, 7}$$

$$1, 1, 1$$

$$\begin{aligned}\therefore \text{LCM} &= 2 \times 3 \times 3 \times 2 \times 2 \times 5 \times 7 \\ &= 2520\end{aligned}$$

Q6

**Answer :**

The given numbers are 16, 28, 40 and 77.

We have:

$$2 \overline{) 16, 28, 40, 77}$$

$$7 \overline{) 8, 14, 20, 77}$$

$$2 \overline{) 8, 2, 20, 11}$$

$$2 \overline{) 4, 1, 10, 11}$$

$$2 \overline{) 2, 1, 5, 11}$$

$$5 \overline{) 1, 1, 5, 11}$$

$$11 \overline{) 1, 1, 1, 11}$$

$$\overline{) 1, 1, 1, 1}$$

$$\begin{aligned}\therefore \text{LCM} &= 2 \times 7 \times 2 \times 2 \times 2 \times 5 \times 11 \\ &= 6160\end{aligned}$$

Q7

**Answer :**

The given numbers are 28, 36, 45 and 60.

We have:

$$2 \overline{) 28, 36, 45, 60}$$

$$2 \overline{) 14, 18, 45, 30}$$

$$3 \overline{) 7, 9, 45, 15}$$

$$3 \overline{) 7, 3, 15, 5}$$

$$5 \overline{) 7, 1, 5, 5}$$

$$7 \overline{) 7, 1, 1, 1}$$

$$1, 1, 1, 1$$

$$\therefore \text{LCM} = 2 \times 2 \times 3 \times 3 \times 5 \times 7$$

$$= 1260$$

Q8

**Answer :**

The given numbers are 144, 180 and 384.

We have:

$$2 \overline{) 144, 180, 384}$$

$$2 \overline{) 72, 90, 192}$$

$$2 \overline{) 36, 45, 96}$$

$$2 \overline{) 18, 45, 48}$$

$$3 \overline{) 9, 45, 24}$$

$$3 \overline{) 3, 15, 8}$$

$$2 \overline{) 1, 5, 8}$$

$$2 \overline{) 1, 5, 4}$$

$$2 \overline{) 1, 5, 2}$$

$$5 \overline{) 1, 5, 1}$$

$$\overline{) 1, 1, 1}$$

$$\therefore \text{LCM} = 2^7 \times 3^2 \times 5$$

$$= 5760$$

\*\*\*\*\* END \*\*\*\*\*