



Exercise 3E

Q8

Answer :

First, we will divide 13601 by 87.

$$\begin{array}{r} 156 \\ 87 \overline{) 13601} \\ \underline{- 87} \\ 490 \\ \underline{- 435} \\ 551 \\ \underline{- 522} \\ 29 \end{array}$$

Remainder = 29

So, 29 must be subtracted from 13601 to get a number exactly divisible by 87.

i.e., $13601 - 29 = 13572$

Now, we have:

$$\begin{array}{r} 156 \\ 87 \overline{) 13572} \\ \underline{- 87} \\ 487 \\ \underline{- 435} \\ 522 \\ \underline{- 522} \\ 0 \end{array}$$

\therefore 29 must be subtracted from 13601 to make it divisible by 87.

Q9

Answer :

First, we will divide 1056 by 23.

$$\begin{array}{r} 45 \\ 23 \overline{)1056} \\ \underline{-92} \\ 136 \\ \underline{-115} \\ 21 \end{array}$$

Required number = $23 - 21 = 2$

So, 2 must be added to 1056 to make it exactly divisible by 23.

i.e., $1056 + 2 = 1058$

Now, we have:

$$\begin{array}{r} 46 \\ 23 \overline{)1058} \\ \underline{-92} \\ 138 \\ \underline{-138} \\ 0 \end{array}$$

$\therefore 1058$ is exactly divisible by 23.

Q10

Answer :

We have to find the largest four digit number divisible by 16 .

The largest four-digit number = 9999

Therefore, dividend =9999

Divisor =16

$$\begin{array}{r} 62 \\ 16 \overline{)9999} \\ \underline{-96} \\ 39 \\ \underline{-32} \\ 79 \\ \underline{-64} \\ 15 \end{array}$$

Here, we get remainder =15

Therefore, 15 must be subtracted from 9999 to get the largest four digit number that is divisible by 16.

i.e., $9999 - 15 = 9984$

Thus, 9984 is the largest four-digit number that is divisible by 16.

Q11

Answer :

Largest five-digit number = 99999

$$\begin{array}{r} 153 \\ 653 \overline{) 99999} \\ \underline{-653} \\ 3469 \\ \underline{-3265} \\ 2049 \\ \underline{-1959} \\ 90 \end{array}$$

Dividend = 99999, Divisor = 653, Quotient = 153 and Remainder = 90

Check: Divisor \times Quotient + Remainder

$$= 653 \times 153 + 90$$

$$= 99909 + 90$$

$$= 99999$$

$$= \text{Dividend}$$

\therefore Dividend = Divisor \times Quotient + Remainder

Verified.

***** END *****