



### Exercise 3F

Q4

**Answer :**

(c) 8

Here we have to tell what least number should be subtracted from 10004 to get a number exactly divisible by 12

So, we will first divide 10004 by 12.

$$\begin{array}{r} 833 \\ 12 \overline{) 10004} \\ \underline{- 96} \phantom{00} \\ 40 \phantom{00} \\ \underline{- 36} \phantom{00} \\ 44 \phantom{00} \\ \underline{- 36} \phantom{00} \\ 8 \end{array}$$

Remainder = 8

So, 8 should be subtracted from 10004 to get the number exactly divisible by 12.

i.e.,  $10004 - 8 = 9996$

$$\begin{array}{r} 833 \\ 12 \overline{) 9996} \\ \underline{- 96} \phantom{00} \\ 39 \phantom{00} \\ \underline{- 36} \phantom{00} \\ 36 \phantom{00} \\ \underline{- 36} \phantom{00} \\ 0 \end{array}$$

Hence, 9996 is exactly divisible by 12.

Q5

**Answer :**

(a) 18

Here , we have to tell that what least number must be added to 10056 to get a number exactly divisible by 23

So, first we will divide 10056 by 23

$$\begin{array}{r} 437 \\ 23 \overline{)10056} \\ \underline{-92} \phantom{00} \\ 85 \phantom{00} \\ \underline{-69} \phantom{00} \\ 166 \phantom{00} \\ \underline{-161} \phantom{00} \\ 5 \end{array}$$

Remainder = 5

Required number =  $23 - 5 = 18$

So, 18 must be added to 10056 to get a number exactly divisible by 23.

i.e.,  $10056 + 18 = 10074$

$$\begin{array}{r} 438 \\ 23 \overline{)10074} \\ \underline{-92} \phantom{00} \\ 87 \phantom{00} \\ \underline{-69} \phantom{00} \\ 184 \phantom{00} \\ \underline{-184} \phantom{00} \\ 0 \end{array}$$

Hence, 10074 is exactly divisible by 23 .

**Q6**

**Answer :**

(d) 462

(a)

$$\begin{array}{r} 4 \\ 11 \overline{)450} \\ \underline{-44} \phantom{00} \\ 10 \end{array}$$

Hence, 450 is not divisible by 11.

(b)

$$\begin{array}{r} 41 \\ 11 \overline{)451} \\ \underline{-44} \phantom{00} \\ 11 \phantom{00} \\ \underline{-11} \phantom{00} \\ 0 \end{array}$$

Hence, 451 is divisible by 11.

(c)

$$\begin{array}{r} 41 \\ 11 \overline{)460} \\ \underline{-44} \phantom{00} \\ 20 \phantom{00} \\ \underline{-11} \phantom{00} \\ 9 \end{array}$$

Hence, 460 is not divisible by 11.

(d)

$$\begin{array}{r} 42 \\ 11 \overline{)462} \\ \underline{-44} \phantom{00} \\ 22 \phantom{00} \\ \underline{-22} \phantom{00} \\ 0 \end{array}$$

Hence, 462 is divisible by 11.

Here, the numbers given in options (b) and (d) are divisible by 11. However, we want a whole number nearest to 457 which is divisible by 11.

So, 462 is whole number nearest to 457 and divisible by 11.

**Q7**

**Answer :**

(c) 184

$$\begin{aligned}\text{Number of whole numbers} &= (1203 - 1018) - 1 \\ &= 185 - 1 \\ &= 184\end{aligned}$$

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