

## 2.ADDITION AND SUBTRACTION

### LET'S RECOLLECT

REMEMBER:

(1) Add the following:

(a)  $325 + 127$

$$\begin{array}{r} \text{Sol- } 325 \\ + 127 \\ \hline 452 \end{array}$$

(b)  $1762 + 172$

$$\begin{array}{r} \text{Sol- } 1762 \\ + 172 \\ \hline 1934 \end{array}$$

(c)  $2495 + 1327$

$$\begin{array}{r} \text{Sol- } 2495 \\ + 1327 \\ \hline 3822 \end{array}$$

(d)  $158 + 121$

$$\begin{array}{r} \text{Sol- } 158 \\ + 121 \\ \hline 279 \end{array}$$

(e)  $679 + 1234$

$$\begin{array}{r} \text{Sol- } 679 \\ + 1234 \\ \hline 1913 \end{array}$$

(f)  $453 + 984$

$$\begin{array}{r} \text{Sol- } 453 \\ + 984 \\ \hline 1437 \end{array}$$

(2) Smriti bought gifts for her mother. She bought 2 lip glosses for Rs276 each and face powder for Rs179. What is the total cost of the gifts?

Sol- Cost of 2 lip glosses =  $2 \times \text{Rs}276 = \text{Rs}552$

Cost of face powder = Rs179

Total cost of gifts =  $\text{Rs}552 + \text{Rs}179 = \text{Rs}$

$$\begin{array}{r} \text{Rs}552 \\ + \text{Rs}179 \\ \hline \text{Rs}731 \end{array}$$

(3) Subtract the following:

(a)  $128 - 97$

$$\begin{array}{r} \text{Sol- } 128 \\ - 97 \\ \hline 31 \end{array}$$

(b)  $756 - 254$

Sol-  $756$   
 $- 254$   
     
 $502$

(c)  $950 - 356$

Sol-  $950$   
 $- 356$   
     
 $594$

(d)  $9874 - 2354$

Sol-  $9874$   
 $- 2354$   
     
 $7520$

(e)  $6715 - 4738$

Sol-  $6715$   
 $- 4738$   
     
 $1977$

(f)  $3428 - 1565$

Sol-  $3428$   
 $- 1565$   
     
 $1863$

### PRACTICE EXERCISE 2.1

(1) Match the rain drops, with their answers in the clouds. One has been done as an example.

(a)  $12,915 + 69,311 =$  (v)  $82,226$

(b)  $75,246 + 1,54,197 =$  (ii)  $2,29,443$

(c)  $28,818 + 80,314 =$  (iv)  $1,09,132$

(d)  $63,584 + 1,76,293 =$  (iii)  $2,39,877$

(e)  $42,436 + 31,515 =$  (i)  $73,951$

(2) Write in the column form and add.

(a)  $1,50,494$  and  $2,37,802$

Sol-  $1,50,494$

$$\begin{array}{r} 1,50,494 \\ +2,37,802 \\ \hline 3,88,296 \end{array}$$

(b) Add five lakh sixty seven thousand five hundred twenty two and twenty seven thousand

Sol-  $5,67,522$

$$\begin{array}{r} 5,67,522 \\ +27,000 \\ \hline 5,94,522 \end{array}$$

(c)  $6,97,585$  and  $2,45,619$

Sol-  $6,97,585$

$$\begin{array}{r} 6,97,585 \\ +2,45,619 \\ \hline 9,43,204 \end{array}$$

(3) Find the sum of the greatest four-digit number and one thousand nine hundred ninety nine.

Sol- Greatest four digit number =  $9,999$

one thousand nine hundred ninety

nine =  $1,999$

$$\begin{array}{r} 9,999 \\ + 1,999 \\ \hline \end{array}$$

Sum = 11,998

### PRACTICE EXERCISE 2.3

(1) Estimate the sum to the nearest tens.

Sol- Here in 1<sup>st</sup> number 7 is greater than 5 and in 2<sup>nd</sup> number 5 is equal to 5

$$\text{Estimate} = 45,32\text{\underline{7}} + 1,27,34\text{\underline{5}}$$

$$= (45,320 + 10) + (1,27,340 + 10)$$

$$= 45,330$$

$$+ 1,27,350$$

$$= \underline{1,72,680}$$

(2) Estimate the sum to the nearest hundreds.

Sol- Here in 1<sup>st</sup> number 8 is greater than 5 and in 2<sup>nd</sup> number 3 is smaller than 5

$$\text{Estimate} = 7,56,9\text{\underline{8}2} + 36,2\text{\underline{3}7}$$

$$= (7,56,900 + 100) + (36,200 + 0)$$

$$= 7,57,000$$

$$+ 36,200$$

$$= \underline{7,93,200}$$

(3) Estimate the sum to the nearest thousands.

Sol- Here in 1<sup>st</sup> number 8 is greater than 5 and in 2<sup>nd</sup> number 3 is smaller than 5

$$\text{Estimate} = 98,\text{\underline{6}78} + 2,34,\text{\underline{4}32}$$

$$= (98,000 + 1000) + (2,34,000 + 0)$$

$$= 99,000$$

$$+ 2,34,000$$

$$= \underline{2,23,100}$$

**PRACTICE EXERCISE 2.4**

(1) Join the coach of the train with the engine by matching the difference of the numbers on the coaches with the answers on the engines.

- |                       |                |
|-----------------------|----------------|
| (a) $732376 - 559964$ | (i) 1,12,637   |
| (b) $67555 - 29545$   | (ii) 38,010    |
| (c) $116387 - 12789$  | (iii) 1,72,412 |
| (d) $138529 - 25892$  | (iv) 1,03,598  |

## PRACTICE EXERCISE 2.5

(1) Fill in the blanks.

(a)  $76,789 - 0 = \underline{76,789}$

(b)  $1,27,345 - 1 = \underline{1,27,344}$

(c)  $9,99,999 - \underline{9,99,999} = 0$

(d)  $87,510 - 10 = \underline{87,500}$

(e)  $76,432 - 100 = \underline{76,332}$

(f)  $28,672 - 1000 = \underline{27,672}$

(2) Jess bought a car priced at Rs 8,75,000.

He paid Rs 56,750 at the time of purchase and the rest after 1 year. How much money was left to be paid after a year?

Sol- Cost of a car = Rs 8,75,000

Money paid at time of purchase = Rs 56,750

Money left to be paid after 1 year =  $\text{Rs } 8,75,000 - \text{Rs } 56,750 = \text{Rs } 8,18,250$

(3) At a magic show, there were 56,985

people. Out of these, 47,000 were children and the rest were adults.

How many adults were there at the magic show?

Sol- Total number of people at a magic show = 56,985

Number of children = 47,000

So, the number of adults =  $56,985 - 47,000$

$= 09,985 = 9,985$

## PRACTICE EXERCISE 2.6

(1) Estimate  $15,817 - 5,346$  to the nearest tens.

Sol- Here in 1<sup>st</sup> number 7 is greater than 5 and in 2<sup>nd</sup> number 6 is greater than 5

$$\text{Estimate} = 15,81\color{red}{\underline{7}} - 5,34\color{red}{\underline{6}}$$

$$= (15,810 + 10) - (5,340 + 10)$$

$$= 15,820 - 5,350$$

$$= 10,470$$

(2) Estimate  $1,46,888 - 46,296$  to the nearest hundreds.

Sol- Here in 1<sup>st</sup> number 8 is greater than 5 and in 2<sup>nd</sup> number 9 is greater than 5

$$\text{Estimate} = 1,46,8\color{red}{\underline{88}} - 46,2\color{red}{\underline{96}}$$

$$= (1,46,800 + 100) - (46,200 + 100)$$

$$= 1,46,900 - 46,300$$

(3) Estimate  $7,89,634 - 5,75,175$  to the nearest thousands.

Sol- Here in 1<sup>st</sup> number 6 is greater than 5 and in 2<sup>nd</sup> number 1 is smaller than 5

$$\text{Estimate} = 7,89,\color{red}{\underline{6}}34 - 5,75,\color{red}{\underline{1}}75$$

$$= (7,89,000 + 1000) - (5,75,000 + 0)$$

$$= 7,90,000 - 5,75,000$$

$$= 2,15,000$$

### MCQs

Tick (✓) the correct answer.

(1)  $7,87,145 - 100 =$

(a) 7,87,100      (b) 7,87,045 ✓

(c) 7,87,405      (d) 7,87,000

(2) Estimate  $2,56,980 - 1,65,490$ , to the nearest thousand.

(a) 92,000 ✓      (b) 95,000

(c) 93,000      (d) 90,000

(3) When 100 is subtracted from a number, the digit at its \_\_\_\_\_ place is decreased by 1.

(a) Tens      (b) Ones

(c) Hundreds ✓      (d) Thousands

(4) 3,89,234 people visited the zoo in October and 5,23,190 people visited in November. How many people visited the zoo in the two months?

(a) 9,12,424 ✓      (b) 9,21,424

(c) 8,12,424      (d) 1,33,956

(5)  $8,90,431 - \underline{\hspace{2cm}} = 0$

(a) 0      (b) 1

(c) 100      (d) 8,90,431 ✓



## WORK IT OUT

(1) Write in the column form and add.

(a) The smallest five-digit number and two thousand two hundred twenty.

Sol- The smallest five-digit number = 99,999

two thousand two hundred twenty = + 2,220

Sum = 1,02,219

(b) Five thousand three hundred forty two and two thousand nine hundred fifty six

Sol- Five thousand three hundred forty two =

5,342

two thousand nine hundred fifty six = + 2,956

Sum = 8,298

(c) 3,40,645 + 3,04,546

Sol- 3,40,645

+ 3,04,546

6,45,191

(d) 1,90,841 + 2,80,730

Sol- 1,90,841

+ 2,80,730

4,71,571

(2) Fill in the blanks.

(a)  $52,689 + 89,756 = 89,756 + \underline{52,689}$

(b)  $5,86,978 + 0 = \underline{5,86,978}$

(c)  $9,45,432 + 1 = \underline{9,45,433}$

(d)  $43,219 + 10 = \underline{43,229}$

(e)  $87,199 + 100 = \underline{87,299}$

(f)  $34,508 + (67,809 + 2,05,010) = 2,05,010 + (67,809 + \underline{34,508})$

(g)  $8,99,178 - \underline{100} = 8,99,078$

(h)  $7,98,123 - 1000 = \underline{7,97,123}$

(i)  $5,46,258 - 5,46,258 = \underline{0}$

(j)  $1,27,450 - \underline{1} = 1,27,449$

(3) Samara bought a car for Rs 4,56,789. She spent Rs 1,23,465 on its accessories. Calculate the total money spent.

Sol- Money spent on car = Rs 4,56,789

Money spent on its accessories = Rs 1,23,465

Total money spent = Rs 4,56,789

+ Rs 1,23,465

Rs 5,80,254

Hence, total money spent is Rs 5,80,254.

(4) Estimate the sum to the nearest tens, hundreds and thousands.

Number	Sum to the nearest tens	Sum to the nearest hundreds	Sum to the nearest thousands
(a) $78,378 + 2,67,584$	3,45,960	3,46,000	3,46,000
(b) $6,12,863 + 54,812$	6,67,670	6,67,700	6,66,000

(a)  $78,378 + 2,67,584$

Sol- (i) Estimate the sum to the nearest tens =  $78,37\text{8} + 2,67,58\text{4}$

(Here in 1<sup>st</sup> number 8 is greater than 5 and in 2<sup>nd</sup> number 4 is smaller than 5)

$$= (78,370 + 10) + (2,67,580 + 0)$$

$$= 78,380 + 2,67,580$$

$$= 3,45,960$$

(ii) Estimate the sum to the nearest hundreds =  $78,3\text{7}8 + 2,67,5\text{8}4$

(Here in 1<sup>st</sup> number 7 is greater than 5 and in 2<sup>nd</sup> number 8 is greater than 5)

$$= (78,300 + 100) + (2,67,500 + 100)$$

$$= 78,400 + 2,67,600$$

$$= 3,46,000$$

(iii) Estimate the sum to the nearest thousands =  $78,\text{3}78 + 2,67,\text{5}84$

(Here in 1<sup>st</sup> number 3 is smaller than 5 and in 2<sup>nd</sup> number 5 is equal to 5)

$$= (78,000 + 0) + (2,67,000 + 1000)$$

$$= 78,000 + 2,68,000$$

$$= 3,46,000$$

(b)  $6,12,863 + 54,812$

Sol- (i) Estimate the sum to the nearest tens =  $6,12,86\text{3} + 54,81\text{2}$

(Here in 1<sup>st</sup> number 3 is smaller than 5 and in 2<sup>nd</sup> number 2 is smaller than 5)

$$= (6,12,860 + 0) + (54,810 + 0)$$

$$= 6,12,860 + 54,810$$

$$= 6,67,670$$

(ii) Estimate the sum to the nearest hundreds =  $6,12,8\text{6}3 + 54,8\text{1}2$

(Here in 1<sup>st</sup> number 6 is greater than 5 and in 2<sup>nd</sup> number 1 is smaller than 5)

$$= (6,12,800 + 100) + (54,800 + 0)$$

$$= 6,12,900 + 54,800$$

$$= 6,67,700$$

(iii) Estimate the sum to the nearest thousands =  $6,12,\text{8}63 + 54,\text{8}12$

(Here in 1<sup>st</sup> number 8 is greater than 5 and in 2<sup>nd</sup> number 8 is greater than 5)

$$= (6,12,000 + 1000) + (54,000 + 1000)$$

$$= 6,12,000 + 54,000$$

$$= 6,66,000$$

(5) Write in the column form and subtract.

(a)  $5,67,102 - 4,76,305$

Sol-  $5,67,102$

$$- \underline{4,76,305}$$

0,90,797

(b) 9,01,678 – 3,86,790

Sol- 9,01,678

– 3,86,790

5,14,888

(c) 4,12,303 – 2,51,902

Sol- 4,12,303

– 2,51,902

1,60,401

(d) 1,32,451 – 1,23,154

Sol- 1,32,451

– 1,23,154

0,09,297

(6) Estimate the difference to the nearest tens, hundreds and thousands.

Number	Difference to the nearest tens	Difference to the nearest hundreds	Difference to the nearest thousands
(a) 37,666–36,888	780	800	1000
(b) 8,79,345–5,82,659	2,96,690	2,96,600	296,000

(a) 37,666–36,888

Sol- (i) Estimate the sum to the nearest tens = 37,666–36,888

(Here in 1<sup>st</sup> number 6 is greater than 5 and in 2<sup>nd</sup> number 8 is greater than 5)

= (37,660 + 10) – (36,880 + 10)

= 37,670 – 36,890

= 780

(ii) Estimate the sum to the nearest hundreds = 37,666–36,888

(Here in 1<sup>st</sup> number 6 is greater than 5 and in 2<sup>nd</sup> number 8 is greater than 5)

= (37,600 + 100) – (36,800 + 100)

= 37,700 – 36,900

= 800

(iii) Estimate the sum to the nearest thousands = 37,666–36,888

(Here in 1<sup>st</sup> number 6 is greater than 5 and in 2<sup>nd</sup> number 8 is greater than 5)

= (37,000 + 1000) – (36,000 + 1000)

= 38,000 – 37,000

= 1000

(b) 8,79,345–5,82,659

(i) Estimate the sum to the nearest tens

= 8,79,345–5,82,659

(Here in 1<sup>st</sup> number 5 is equal to 5 and in 2<sup>nd</sup> number 9 is greater than 5)

= (8,79,340 + 10) – (5,82,650 + 10)

$$= 8,79,350 - 5,82,660$$

$$= 2,96,690$$

(ii) Estimate the sum to the nearest hundreds =  $8,79,345 - 5,82,659$

(Here in 1<sup>st</sup> number 4 is smaller than 5 and in 2<sup>nd</sup> number 5 is equal to 5)

$$= (8,79,300 + 0) - (5,82,600 + 100)$$

$$= 8,79,300 - 5,82,700$$

$$= 2,96,600$$

(iii) Estimate the sum to the nearest thousands =  $8,79,345 - 36,659$

(Here in 1<sup>st</sup> number 4 is smaller than 5 and in 2<sup>nd</sup> number 6 is greater than 5)

$$= (8,79,000 + 0) - (5,82,000 + 1000)$$

$$= 8,79,000 - 5,83,000$$

$$= 2,96,000$$

(7) There are 12,389 birds in a bird sanctuary. Out of those, 7,845 birds migrated. How many birds are left in the sanctuary?

Sol- Total number of birds in a bird sanctuary = 12,389

Number of birds migrated = 7,845

Number of birds left in the sanctuary =

$$12,389$$

$$+ 7,845$$

$$= \underline{20,234}$$

Hence, 20,234 birds are left in the sanctuary.

## ENRICHMENT 2

### Problems on Addition and Subtraction

(1) Ahana's flower shop sold 53,074 flowers in the month of May. It sold 62,456 flowers in the month of July. How many more flowers did it sell in the month of July?

Sol- Number of flowers sold in July = 62,456

Number of flowers sold in May =  $- \underline{53,074}$

Difference =  $\underline{09,482}$

Thus, 9,482 more flowers sold in July than May.

(2) Mrs Lee earns Rs56,789 per month. Mrs Abraham earns Rs65,123 per month. How much less money does Mrs Lee earn than Mrs Abraham?

Sol- Mrs Abraham earns per month=

Rs 65,123

Mrs Lee earns per month =  $- \underline{\text{Rs } 56,789}$

Difference =  $\underline{\text{Rs } 08,334}$

Thus, Mrs Lee earned Rs 8,334 less than Mrs Abraham.

(3) Pritesh has 45,678 balloons. 11,453 of those are red, and the rest are green. How many green balloons does Pritesh have?

Sol- Total number of balloons = 45,678

Number of red balloons =  $- \underline{11,453}$

Number of green balloons =  $\underline{34,225}$

Thus, Pritesh have 34,225 green balloons.

(4) 10,543 children and 24,467 adults went to see a cricket match. The stadium has 38,234 seats. How many seats were empty?

Sol- Number of children = 10,543

Number of adults =  $+ \underline{24,467}$

Total people went to see =  $\underline{35,010}$

the match

Total number of seats in stadium = 38,234

Number of seats occupied =  $- \underline{35,010}$

Number of empty seats =  $\underline{03,224}$

Thus, 3,224 seats were empty.

(5) Joseph works at a stationery shop. He has to sell 12,456 stationery items in three weeks. He sold 4563 stationery items in the first week and 3268 stationery items in the second week. How many more stationery items does Joseph have to sell?

Sol- Total number of items has to sell = 12,456

Number of items sold in first week = 4,563

Number of items sold in second week = 3,268

Number of items left to sell =  $12,456 - (4,563 + 3,268) = 12,456 - 7,831 = 9,188$

Thus, 9,188 more items Joseph have to sell.

(6) Alia has Rs43,890 in one bank account. She has Rs23,945 in another bank account. How much money does Alia have in all?

Sol- Amount in one bank account = Rs43,890

Amount in another bank account = + Rs23,945

Total amount Alia have in all = Rs67,835

Thus, Rs67,835 amount Alia have in all.

(7) A garden has 32,645 flowers. 12,590 of them are roses and 10,640 are lilies. The rest are sunflowers. How many sunflowers are there in the garden?

Sol- Total number of flowers in a garden = 32,645

Number of roses = 12,590

Number of lilies = 10,640

Number of sunflowers =  $32,645 - (12,590 + 10,640) = 32,645 - 23,230 = 19,415$

Thus, 19,415 sunflowers are there in the garden.

(8) Jacob and his father went on a holiday. The ticket costs Rs16,395 for an adult and Rs12,367 for a child. They had a coupon for Rs1000. How much did Jacob and his father pay for the tickets?

Sol- Cost of ticket for an adult = Rs16,395

Cost of ticket for a child = + Rs12,367

Total cost of tickets = Rs28,762

Amount of coupon they had = - Rs 1,000

Total amount they paid for = Rs27,762

the tickets

Thus, Rs27,762 is paid for the tickets.

(9) Lyna collected 17,845 tea leaves from her tea garden in one week and 14,230 tea leaves in another week. How many tea leaves did she collect in all?

Sol- Number of tea leaves collected in one week = 17,845

Number of tea leaves collected in another week = 14,230

Total number of tea leaves collected =  $17,845 + 14,230 = 32,075$

Thus, 32,075 tea leaves she collected in all.

(10) A candy factory gets a new order. They have to prepare 34,567 orange candies and 23,423 chocolate candies. How many candies do they have to prepare altogether?

Sol- Number of orange candies have to prepare = 34,567

Number of chocolate candies have to prepare = 23,423

Total number of candies they have to prepare =  $34,567 + 23,423 = 57,990$

Thus, 57,990 candies they have to prepare altogether.