

Chapter - 1

Addition and Subtraction

Example 1. Add : 23041, 10532, 31210, 22000, 2104 and 102.

Solution :		Ajuts	Thousands	Hundreds	Tens	Ones
23041						
10532		2	3	0	4	1
31210		1	0	5	3	2
22000		3	1	2	1	0
2104		2	2	0	0	0
102			2	1	0	4
<hr/>				1	0	2
88989		8	8	9	8	9

Answer : 88989.

Example 2. Add : 312024, 103001, 150310, 201200, 131141 and 102203.

Solution :		L	Aj	Th	H	T	O
312024							
103001		3	1	2	0	2	4
150310		1	0	3	0	0	1
201200		1	5	0	3	1	0
131141		2	0	1	2	0	0
102203		1	3	1	1	4	1
<hr/>		1	0	2	2	0	3
999879		9	9	9	8	7	9

Answer : 999879.

- ☐ The numbers are placed as ones under ones, tens under tens, hundreds under hundreds.
- ☐ Addition is started from the place of ones.
- ☐ The sum of each place is written below in absence of carrying number.

Example 3. Add : 572104, 650489, 948531, 886350, 95448 and 749065.

Solution :

$$\begin{array}{r}
 572104 \\
 650489 \\
 948531 \\
 886350 \\
 95448 \\
 749065 \\
 \hline
 3901987
 \end{array}$$

Ni	L	Aj	Th	H	T	O
③	④	③	①	②	②	
	5	7	2	1	0	4
	6	5	0	4	8	9
	9	4	8	5	3	1
	8	8	6	3	5	0
		9	5	4	4	8
	7	4	9	0	6	5
3	9	0	1	9	8	7

Answer : 3901987.

- ☐ The numbers are arranged in the table.
- ☐ The sum of the digits of ones is 27. 27 is 2 tens and 7 ones, so 7 of 27 is placed under the line in the ones place and 2 of 27 is written within a circle on the top of tens place.
- ☐ In the same way, adding the digits of tens place, the carrying number 2 is written on the top of the hundreds place.
- ☐ Similarly, the digits of the hundreds place, thousands place, ajuts place and lacs place are added.
- ☐ Adding the digits of lacs place, the carrying number is written on the top of nijuts place within a circle.
- ☐ As there is no other digit in the nijuts place, the digit is written as sum in nijuts place, within the circle.

Example 4. Add the numbers writing them side by side.

(a) 31420, 50261, 47523, 9431, 23084 and 62100.

(b) 425731, 653802, 749243, 86010, 72301 and 930211.

Solution :

$$\begin{array}{cccccc} \text{////////} & \text{////////} & \text{////////} & \text{////} & \text{////////} & \text{////////} \\ \text{(a)} & 31420 + 50261 + 47523 + 9431 + 23084 + 62100 \\ & = 223819 \end{array}$$

Answer : 223819.

$$\begin{array}{cccccc} \text{////////} & \text{////////} & \text{////////} & \text{////////} & \text{////////} & \text{////////} \\ \text{(b)} & 425731 + 653802 + 749243 + 86010 + 72301 + 930211 \\ & = 2917298 \end{array}$$

Answer : 2917298.

- ☐ The numbers are written side by side putting plus sign (+) in between them.
- ☐ The result of the addition is written on the line below putting equal sign (=).
- ☐ Before adding the digits of ones, tens, hundreds, thousands,places successively the digits are marked with (/).
- ☐ The carrying digits are added to the digit on the left side.

Remarks : It is convenient to mark on the digits of the same place with (/) at the time of adding.

Add (One is worked out) :

(a) 6 3 2 0 5 4	(b) 4 6 8 5 3	(c) 5 3 2 8 6 1	(d) 7 3 2 8 4 6
2 8 4 7 1 8	7 2 0 4 1	7 0 4 1 0 5	8 5 3 9 2
4 0 5 6 5 3	5 3 9 0 5	2 9 5 0 3 1	9 0 8 7 0 5
5 2 0 8 9 0	2 0 7 1 4	3 2 0 5 2 4	6 2 4 1 5 7
7 4 1 5 0 6	1 6 3 0 0	8 1 3 0 1 6	5 7 0 2 3 4
8 1 3 2 3 2	8 1 4 6 7	<hr style="border: 1px solid pink;"/>	9 0 6 3
3 3 9 8 0 5 3	<hr style="border: 1px solid pink;"/>		<hr style="border: 1px solid pink;"/>

Fill in the boxes :

(a) $645317 + 8297 + 53086 + 264309 + 708321 =$

(b) $526394 + 230087 + 630801 + 319500 + 460009$
 $+ 809625 =$

Example 5. Mr. Mizan sold rice from three pieces of land for Tk. 25087, Tk. 16920 and Tk. 30725 respectively and gram from another piece of land for Tk. 9872. What is the total price of the crops that Mr. Mizan sold ?

Solution : Mr. Mizan sold rice from three pieces of land :

$$\begin{array}{r}
 \text{Tk. } 25087 \\
 \text{Tk. } 16920 \\
 \text{Tk. } 30725 \\
 \text{He sold gram : } \text{Tk. } 9872 \\
 \hline
 \text{Total Tk. } 82604 \text{ (Adding)}
 \end{array}$$

Answer : Mr. Mizan sold crops worth Tk. 82604.

Example 6. Subtract 713241 from 839642.

$$\begin{array}{r}
 839642 \\
 - 713241 \\
 \hline
 126401
 \end{array}$$

L	Aj	Th	H	T	O	
8	3	9	6	4	2	← minuend
- 7	1	3	2	4	1	← subtrahend
1	2	6	4	0	1	← difference

Answer : 126401.

Example 7. Subtract 94273 from 758346.

$$\begin{array}{r}
 758346 \\
 - 94273 \\
 \hline
 664073
 \end{array}$$

Answer : 664073.

L	Aj	Th	H	T	O
7	5^{+10}	8	3	4^{+10}	6
- 7^{+1}	9	4	2^{+1}	7	3
6	6	4	0	7	3

Example 8. Subtract 784906 from 960752.

$$\begin{array}{r}
 960752 \\
 - 784906 \\
 \hline
 175846
 \end{array}$$

Answer : 175846.

L	Aj	Th	H	T	O
9	6^{+10}	0^{+10}	7^{+10}	5	2^{+10}
- 7^{+1}	8^{+1}	4^{+1}	9	0^{+1}	6
1	7	5	8	4	6

Example 9. Subtract by writing the digits side by side

(a) 95742 from 650263

(b) 579406 from 836041

Solution :

$$(a) \overset{'}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}}650263 - \overset{'}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}}95742 = 554521$$

Here, 650263 is minuend, 95742 is subtrahend and the difference is 554521.

Answer : 554521.

$$(b) \overset{'}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}}836041 - \overset{'}{\overset{'}}{\overset{'}}{\overset{'}}{\overset{'}}}579406 = 256635$$

Here, 836041 is minuend, 579406 is subtrahend and the difference is 256635.

Answer : 256635.

- ☐ Minus sign (–) is placed in between subtrahend and minuend and equal sign (=) is in front of difference.
- ☐ To subtract conveniently, the digits of ones, tens, hundreds, thousands places are marked with (').

Subtract (one is worked out) :

$$\begin{array}{r}
 (a) \quad 853204 \\
 \underline{478526} \\
 374678
 \end{array}
 \quad
 \begin{array}{r}
 (b) \quad 650487 \\
 \underline{73295}
 \end{array}
 \quad
 \begin{array}{r}
 (c) \quad 728513 \\
 \underline{543279}
 \end{array}
 \quad
 \begin{array}{r}
 (d) \quad 860521 \\
 \underline{394076}
 \end{array}$$

Fill in the boxes (one is worked out) :

$$\begin{array}{llll}
 (a) & 628713 - 372946 & = & \boxed{255767} \\
 (b) & 462051 - 94608 & = & \boxed{} \\
 (c) & 750432 - 364853 & = & \boxed{} \\
 (d) & 804706 - 525376 & = & \boxed{}
 \end{array}$$

Example 10 12804 litchies were plucked from Mina's litchi trees. From these her father sold 7925 litchies. How many litchies are left?

Solution : Number of litchies plucked : 1 2 8 0 4
 Number of litchies sold : $(-)$ 7 9 2 5
 The number of litchies left : 4 8 7 9

Answer : 4879 litchies are left.

Example 11. The sum of three numbers is 845076. Of them two numbers are 321674 and 286539. What is the third number?

Solution : The two numbers 3 2 1 6 7 4
 2 8 6 5 3 9
 The sum of two numbers 6 0 8 2 1 3
 The sum of three numbers 8 4 5 0 7 6
 and the sum of two numbers 6 0 8 2 1 3
 \therefore The other number is 2 3 6 8 6 3 (by subtraction)

Answer : The third number is 236863.

Example 12. Abdul Latif had Tk. 621345. From that money he gave his elder daughter Tk. 85924, Tk. 84790 to younger daughter and to his son he gave Tk. 9830 more than his elder daughter. He gave the rest of the money to his wife. How much will his wife get?

Solution: Elder daughter got Tk. 8 5 9 2 4
 Younger daughter got Tk. 8 4 7 9 0
 Two daughters got Tk. 1 7 0 7 1 4 (by addition)
 The son got Tk. 9830 more than elder daughter
 Tk. 8 5 9 2 4
 (+) Tk. 9 8 3 0
 \therefore The son got Tk. 9 5 7 5 4
 Three persons got Tk. 1 7 0 7 1 4
 (+) Tk. 9 5 7 5 4
 Tk. 2 6 6 4 6 8
 Total amount was Tk. 6 2 1 3 4 5
 Three persons together got Tk. 2 6 6 4 6 8
 The rest amount Tk. 3 5 4 8 7 7 (by subtraction)
 Answer : Abdul Latif's wife got Tk. 354877.

Exercise - 1

1. Add :

(a) $\begin{array}{r} 83572 \\ 40213 \\ 21004 \\ 6532 \\ \hline 8450 \end{array}$	(b) $\begin{array}{r} 230140 \\ 312103 \\ 124315 \\ 200210 \\ \hline 112301 \end{array}$	(c) $\begin{array}{r} 536709 \\ 470985 \\ 325071 \\ 608213 \\ \hline 289050 \end{array}$
(d) $\begin{array}{r} 132023 \\ 210240 \\ 301102 \\ 123012 \\ 120300 \\ \hline 102312 \end{array}$	(e) $\begin{array}{r} 648753 \\ 269107 \\ 853264 \\ 598603 \\ 87562 \\ \hline 69875 \end{array}$	(f) $\begin{array}{r} 872094 \\ 435809 \\ 569275 \\ 325680 \\ 650942 \\ \hline 798056 \end{array}$

2. Fill in the boxes:

(a) $43570 + 26095 + 40591 + 9207 + 8754 =$

(b) $560829 + 427108 + 82075 + 6429$
 $+ 325790 + 53008 =$

(c) $325708 + 246805 + 508362 + 730096$
 $+ 92346 + 64008 =$

(d) $410527 + 356807 + 512934 + 239006$
 $+ 614500 + 800357 =$

3. Subtract :

- (a) 53205 from 865497
- (b) 462136 from 798546
- (c) 96837 from 875320
- (d) 479568 from 962053
- (e) 658379 from 927405.

4. Fill in the boxes :

(a) $763569 - 51407 =$

(b) $972403 - 48705 =$

(c) $860523 - 285306 =$

(d) $732645 - 428759 =$

5. Fill in the boxes :

$$\begin{array}{r}
 536\boxed{}14 \\
 2\boxed{}7985 \\
 6954\boxed{}6 \\
 76\boxed{}893 \\
 \hline
 228264\boxed{}
 \end{array}$$

$$\begin{array}{r}
 82\boxed{}753 \\
 698\boxed{}67 \\
 54798\boxed{} \\
 7\boxed{}56\boxed{}9 \\
 \hline
 2\boxed{}97150
 \end{array}$$

$$\begin{array}{r}
 87\boxed{}506 \\
 - 9678\boxed{} \\
 \hline
 778\boxed{}24
 \end{array}$$

$$\begin{array}{r}
 964\boxed{}25 \\
 - 5\boxed{}7468 \\
 \hline
 39\boxed{}457
 \end{array}$$

6. 240851 mangoes are plucked from a tree of Raju's mango garden. From another tree 92105 mangoes are plucked and from another tree 55008 mangoes are plucked. How many mangoes are plucked from that garden ?
7. Minued is 985214 and subtrahend is 97465. What is the difference?
8. If 68975 is subtracted from a number, the difference is 794768. What is the number?
9. Subtract the greatest number of five digits from the least number of six digits.
10. To get the sum 9 lacs, what is the number that should be added to the greatest number of 4 digits?
11. Find the difference of the greatest and least number of 6 digits that are formed using the digits 6, 8, 9, 5, 0, 4 once.

12. Raju's grandfather sold paddy for Tk. 25830, wheat for Tk. 30645 and gram for Tk. 9786. He bought jute for Tk. 45927. How much money does he have left ?
13. There were 6785 students in a school. At the beginning of the year 542 students left the school and 950 new students got admitted. How many students are there at present in that school?
14. Mr. Farid sold wheat for Tk. 8604 and mustard for Tk. 5798. From that money he gave Tk. 4250 to his son and paid Tk. 5000 against loan. He deposited the rest of the money in the bank. How much money did he deposit in the bank?
15. Mina has Tk. 45987. Raju has Tk. 8250 less than that of Mina. Rani has Tk. 985 more than that of Raju. How much money do the three persons have altogether?
16. The sum of four numbers is 468520. Two of them are 73584 and 64209. The third number is 9485 less than the first one. What is the fourth number?
17. Rahela Begum has Tk. 985320 in a bank. She drew Tk. 172500, Tk. 150430 and Tk. 286250 respectively in three instalments. From the rest of the money she bought saving certificates for Tk. 2 lacs. How much money does she have left in the bank.
18. Sima's uncle sold fish from his pond for Tk. 29850 and eggs for Tk. 20678. From that money he gave Tk. 15600 to his son and Tk. 10890 to his daughter. From the rest of money he bought a cow for Tk. 15000. How much money does he have left?

Example 3. Simplify : $1\frac{3}{4}-\frac{1}{3}$ of $\frac{3}{4}\div\frac{5}{8}-3\frac{1}{2}+2\frac{1}{4}$

Solution : $1\frac{3}{4}-\frac{1}{3}$ of $\frac{3}{4}\div\frac{5}{8}-3\frac{1}{2}+2\frac{1}{4}$

$$= \frac{7}{4} - \frac{1}{\cancel{3}_1} \text{ of } \frac{\cancel{3}^1}{4} \div \frac{5}{8} - \frac{7}{2} + \frac{9}{4}$$

$$= \frac{7}{4} - \frac{1}{4} \div \frac{5}{8} - \frac{7}{2} + \frac{9}{4}$$

$$= \frac{7}{4} - \frac{1}{\cancel{4}_1} \times \frac{8^2}{5} - \frac{7}{2} + \frac{9}{4}$$

$$= \frac{7}{4} - \frac{2}{5} - \frac{7}{2} + \frac{9}{4}$$

$$= \frac{35 - 8 - 70 + 45}{20}$$

$$= \frac{35 + 45 - 70 - 8}{20}$$

$$= \frac{80 - 78}{20}$$

$$= \frac{\cancel{2}^1}{\cancel{20}_{10}}$$

$$= \frac{1}{10}$$

Answer : $\frac{1}{10}$.