03 - MATHEMATICAL OPERATIONS WITH WHOLE NUMBERS

3.1 Addition

A trader collecting coconuts bought 2 452 coconuts from one estate and 7 145 coconuts from another estate. The total number of coconuts he had bought from both estates, can be obtained by addings the two numbers of coconuts he had bought from both estates.

Mathematical operation of addition.

Let us find the number of coconuts the trader bought.

That is :

$$\begin{array}{r} 2\ 452 \\ +\ 7\ 145 \\ \hline 9\ 597 \end{array}$$

Now consider the following example.

The population of a certain town is 6 252. The population of another town is 3 436. Find the population of both towns.

$$\begin{array}{r} 6\ 252 \\ +\ 3\ 436 \\ \hline 9\ 688 \end{array}$$

Activity 3.1

Add.

(1) $\begin{array}{r} 2\ 048 \\ +\ 3\ 051 \\ \hline \\ \hline \end{array}$ (2) $\begin{array}{r} 3\ 056 \\ +\ 1\ 442 \\ \hline \\ \hline \end{array}$ (3) $\begin{array}{r} 12\ 078 \\ +\ 1\ 201 \\ \hline \\ \hline \end{array}$ (4) $\begin{array}{r} 13\ 672 \\ +\ 14\ 214 \\ \hline \\ \hline \end{array}$ (5) $\begin{array}{r} 30\ 075 \\ +\ 25\ 214 \\ \hline \\ \hline \end{array}$

(6) The number of students in a school is 3 754. The number of students in another school is 5 208. Find the total number of students in both schools.

We can write the two numbers in this form.

	Thousands	Hundreds	Tens	Units
	3	7	5	4
+	5	2	0	8
	8	9	6	2

The total number of students in both schools = 8 962

Let us consider how these two numbers were added.

Step 1

	Thousands	Hundreds	Tens	Units
			1	
	3	7	5	4
+	5	2	0	8
				2

Note: the cage ☐ *inserted near tens place.*
When 4 and 8 in units place are added, we get 12. That is 1 in tens place and 2 in units place.
The extra 1 is obtained at tens place is seen as 1 in a cage in tens place.

Step 2

Thousands	Hundreds	Tens	Units
		1	
3	7	5	4
5	2	0	8
8	9	6	2

Adding 1 in tens place and 5 we get 6.

Let us do another addition.

	Thousands	Hundreds	Tens	Units
		1	1	
	2	4	5	7
+	1	3	9	6
	3	8	5	3

In unit place, 7 + 6 = 13. That is 1 in tens place and 3 in units place.

Extra 1 at tens place is shown as 1 in tens place. Then at tens place, 1 + 5 + 9 = 15. That is 1 at hundreds place and five at tens place. In this manner, 1 at hundreds place is shown as 1. Therefore, at hundreds place 1 + 4 + 3 = 8.

Acitivity 3.2

Add.

1. 2 548 + 3 659

2. 25 678 + 39 546

3. Fill in the blank cages in the two additions given below.

(i) 3 ☐ 4 + ☐ 4 ☐ = 1 3 0 7

(ii) 3 ☐ 4 ☐ + 2 5 ☐ 3 = 6 4 2 8

Exercise 3.1

1. Add.

(i) $\begin{array}{r} 364 \\ +\ 943 \\ \hline \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} 25 \\ 233 \\ +\ 408 \\ \hline \\ \hline\hline \end{array}$ (iii) $\begin{array}{r} 3\ 075 \\ +\ 2\ 418 \\ \hline \\ \hline\hline \end{array}$

(iv) $\begin{array}{r} 237 \\ 4\ 588 \\ +\ 3\ 876 \\ \hline \\ \hline\hline \end{array}$ (v) $\begin{array}{r} 30\ 452 \\ +\ 6\ 239 \\ \hline \\ \hline\hline \end{array}$ (vi) $\begin{array}{r} 25\ 658 \\ +\ 12\ 437 \\ \hline \\ \hline\hline \end{array}$

(vii) $\begin{array}{r} 1\ 057 \\ 36\ 426 \\ +\ 51\ 473 \\ \hline \\ \hline\hline \end{array}$ (viii) $\begin{array}{r} 422 \\ 3\ 854 \\ 7\ 803 \\ +\ 15\ 626 \\ \hline \\ \hline\hline \end{array}$

2. Fill in the blank cages of the problems given below.

(i) $\begin{array}{r} 5\ \square\ 3 \\ +\square\ 2\ \ 7 \\ \hline 9\ \ 4\ \ 0 \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} 2\ \square\square\ 4 \\ +\ \square 8\ \ 2\ \ 9 \\ \hline 7\ \ 1\ \ 8\ \square \\ \hline\hline \end{array}$ (iii) $\begin{array}{r} 2\ \square\ 8\ \square 5 \\ +\ 5\ \ 8\ \square 7\ \ 2 \\ \hline \square\ 2\ \ 9\ \ 5\ \square \\ \hline\hline \end{array}$

3. Jayanthi Maha Vidyalaya received 270 Mathematics text books for Grade six, 285 Mathematics text books for Grade seven and 243 Mathematics text books for Grade eight from the Government. What is the total number of Mathematics text books received by the vidyalaya for these three grades?

4. Facilities fees collected during three days in a school are as follows.

Monday	-	Rs. 960
Tuesday	-	Rs.1 200
Wednesday	-	Rs. 840

What is the total amount collected during these three days?

5. In a shoe factory, numbers of pairs of shoes manufactured during the first three months are as follows.

January	3 652
February	1 278
March	2 045

Find the total number of pairs of shoes manufactured during these three months.

3.2 Subtraction

Let us study the following examples for subtraction.

Example 1

In a term test, the total marks obtained by Piyal, Kamal and Wimal are given below.

Piyal	Kamal	Wimal
857	879	645

Now consider the following questions.

(i) Who has scored the highest marks?

(ii). How many marks more should Wimal have obtained if his marks are to be equal to that of Piyal?

How would you find the answer for question (ii) above?

To find how many marks Kamal has obtained than Piyal, Piyal's marks should be subtracted from Kamal's marks.

i.e.
$$\begin{array}{r} 879 \\ -\ 857 \\ \hline 22 \end{array}$$

Kamal has obtained 22 marks, more than Piyal.

Marks obtained by Piyal = 857

Marks obtained by Wimal = 645

Marks obtained by Piyal than Wimal

$$\begin{array}{r} = \quad 857 \\ -\ 645 \\ \hline 212 \end{array}$$

Example 2

The population in Soma's village = 5 675

The population in Kamala's village = 4 342

How many more persons are there in Soma's village than the number in Kamala's village?

$$\begin{array}{r} 5\ 675 \\ -\ 4\ 342 \\ \hline 1\ 333 \end{array}$$

Activity 3.3

Subtract.

(1) $\begin{array}{r} 385 \\ -\ 222 \\ \hline \end{array}$ (2) $\begin{array}{r} 578 \\ -\ 365 \\ \hline \end{array}$ (3) $\begin{array}{r} 2\ 795 \\ -\ 1\ 252 \\ \hline \end{array}$ (4) $\begin{array}{r} 6\ 068 \\ -\ 3\ 053 \\ \hline \end{array}$ (5) $\begin{array}{r} 12\ 956 \\ -\ 10\ 423 \\ \hline \end{array}$ (6) $\begin{array}{r} 34\ 589 \\ -\ 23\ 278 \\ \hline \end{array}$

7. Rewrite and fill in the blank cages.

(i) $\begin{array}{r} 7\ 4 \\ -\ \square\ \square \\ \hline 2\ 3 \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} \square\square\square \\ -\ 3\ 5\ 7 \\ \hline 4\ 3\ 2 \\ \hline\hline \end{array}$

$\begin{array}{r} 9\,653 \\ -\ 7\,392 \\ \hline 2\,261 \\ \hline\hline \end{array}$

2 can be subtracted from 3 at units place, but in tens place, 9 cannot be subtracted from 5. Therefore, 1 from hundreds place is carried over to the tens place. This operation can be shown as follows.

$\begin{array}{r} \boxed{5}\,\boxed{15} \\ 9\ \cancel{6}\ \cancel{5}\ 3 \\ -\ 7\ 3\ 9\ 2 \\ \hline 2\ 2\ 6\ 1 \\ \hline\hline \end{array}$

Now there is 15 at the tens place. 9 can be subtracted from 15. Then result is 6. Now, there is only 5 at hundreds place. From this when 3 is subtracted, 2 is left. when 7 is subtracted from 9 at thousands place, 2 is left.

Activity 3.4

Subtract.

(1) $\begin{array}{r} 3\,665 \\ -\ 2\,485 \\ \hline\hline \end{array}$ (2) $\begin{array}{r} 3\,675 \\ -\ 2\,843 \\ \hline\hline \end{array}$ (3) $\begin{array}{r} 2\,985 \\ -\ 1\,996 \\ \hline\hline \end{array}$

(4) Fill in the blank cages.

(i) $\begin{array}{r} 9\ 8\square 4 \\ -\ \square\ 7\ 5\ 9 \\ \hline 7\ 1\ 1\ 5 \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} 3\ 6\ \square\ 5 \\ -\ 2\ \square\ 8\ 7 \\ \hline \square\ 1\ 8\ 8 \\ \hline\hline \end{array}$

Exercise 3.2

1. Subtract.

(i) $\begin{array}{r} 546 \\ -\ 387 \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} 410 \\ -\ 89 \\ \hline\hline \end{array}$ (iii) $\begin{array}{r} 9\,837 \\ -\ 5\,453 \\ \hline\hline \end{array}$ (iv) $\begin{array}{r} 8\,996 \\ -\ 4\,448 \\ \hline\hline \end{array}$

(v) $\begin{array}{r} 6\,017 \\ -\ 3\,058 \\ \hline\hline \end{array}$ (vi) $\begin{array}{r} 70\,325 \\ -\ 5\,597 \\ \hline\hline \end{array}$ (vii) $\begin{array}{r} 32\,109 \\ -\ 17\,778 \\ \hline\hline \end{array}$

2. Rewrite and fill in the blank cages with the correct numbers.

(i) $\square\square\square - 548 = \_\_\_$

(ii) $8595 - \square\square\square\square = 3134$

(iii) $6\square - \square 3 = 26$

(iv) $78\square 5 - \square 38 = 7407$

(v) $8\square 26 - \square\square 5\square = 20\square 8$

(vi) $7\square 8 - 285 = \square 9\square$

3. In Kumara College, there are 285 students in all Grade 6 classes and 268 students in all Grade 7 classes. How many more students are there in Grade 6 classes than in Grade 7 classes?

4. The amount of money earned by Premila's mother by selling string hoppers on Monday was Rs. 1 250. Her income on Tuesday was Rs. 1 148. Find the money she earned on Monday above her earnings on Tuesday?

5. Subtract 32 109 from 32 500.

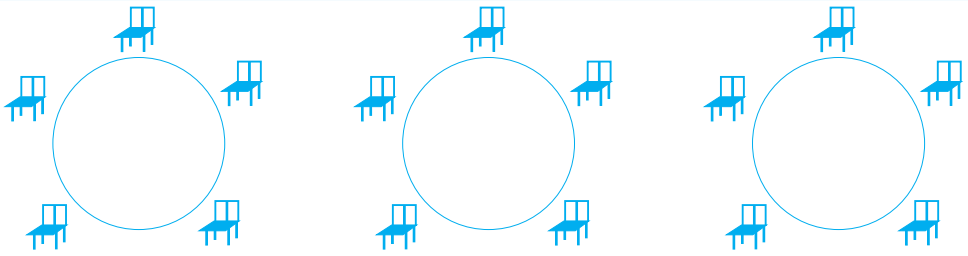
6. The total number of parents who participated in a parents' meeting in Kumari's school was 348. It was hoped earlier that 420 would participate in this meeting. According to this, how many parents did not turn up?

7. In the month of January, the number of coconuts plucked from Nimal's estate was 2 258. Number of coconuts plucked from Somapala's estate was 3 545. The number of coconuts plucked from Piyal's estate was 5 710.

   (I) Find the difference between the number of coconuts plucked from Nimal's estate and Piyal's estate?

   (II) Find the difference between the number of coconuts plucked from Piyal's estate and Somapala's estate?

3.3 Multiplication



The above diagram shows how tables and chairs are arranged for the invitees for a certain function. There are 5 chairs around each table, and there are 3 tables. The total number of people expected at the function is 15.

We can obtain this result as 5 + 5 + 5.

It can also be obtained by multiplying 5 by 3. That is 5 × 3 = 15.

The number of tables with chairs was increased to 6. How many people can be invited for the function?

The number can be obtained as 5 + 5 + 5 + 5 + 5 + 5 = 30.

This is a repeated addition. But it can be easily obtained as 5 × 6 = 30.

Multiplication is repeated addition.

Example 1 2 + 2 + 2 + 2 + 2 + 2 = 12. There are 6 twos.
Therefore, 2 × 6 = 12.

Example 2 10 + 10 + 10 + 10 + 10 = 50. There are 5 tens.
Therefore, 10 × 5 = 50.

Instead of repeated addition, multiplication can be made use of.

Activity 3.5

Rewrite and fill in the blanks.

(1) 20 + 20 + 20 + 20 = 20 × ..... = ...

(2) 8 + 8 + 8 + 8 + 8 = ...×..... = ...

Multiply.

(3) 3 × 6 = ____

(4) 5 × 7 = ____

(5) 9 × 7 = ____

(6) 8 × 8 = ____

(7) 9 × 8 = ____

(8) 7 × 12 = ____

When a number is multiplied by 1 the result is the same number. When a number is multiplied by zero the result is zero.

Example 1 $5 \times 1 = \underline{5}$ Example 2 $28 \times 1 = \underline{28}$

$5 \times 0 = \underline{0}$ $28 \times 0 = \underline{0}$

Find the number of people invited for a party if 67 tables were arranged with 5 chairs around each table. To obtain the answer 67 has to be multiplied by 5.

$$\begin{array}{r} 67 \\ \times\ \ 5 \\ \hline 335 \\ \hline\hline \end{array}$$

First multiply 7 by 5. $7 \times 5 = 35$. There is 3 in the tens place and 5 in the units place. Let us write five at the units place.
Now multiply 6 by 5.
$6 \times 5 = 30$.
3 is added to 30 in the tens place.

$\therefore \quad 30 + 3 = 33$

$\therefore \quad 67 \times 5 = 335$

Example 01

$$\begin{array}{r} 5\ 8 \\ \times\ \ 7 \\ \hline 4\ 0\ 6 \\ \hline\hline \end{array}$$

$7 \times 8 = 56$
$7 \times 5 = 35$
$5 + 35 = 40.$

$$\begin{array}{r} 5\ 6 \\ 35 \end{array}$$

Example 02

$$\begin{array}{r} \text{Th H T U} \\ 2\ 5\ 7 \\ \times\ \ \ \ 9 \\ \hline 2\ 3\ 1\ 3 \\ \hline\hline \end{array}$$

$9 \times 7 = 63$ → $6\ 3$

$9 \times 5 = 45$ → $4\ 5$ (carried) $5\ 1$

$9 \times 2 = 18$ → $1\ 8$ (carried) $2\ 3$

$$\begin{array}{r} \text{H T U} \\ 5\ 1\ 3 \end{array}$$

Example 03

$$\begin{array}{r} 4\ 5\ 3 \\ \times\ \ \ \ 8 \\ \hline 3\ 6\ 2\ 4 \\ \hline\hline \end{array}$$

Activity 3.6

Multiply.

(i) $\begin{array}{r} 75 \\ \times\ 8 \\ \hline\hline \end{array}$ (ii) $\begin{array}{r} 285 \\ \times\ 7 \\ \hline\hline \end{array}$ (iii) $\begin{array}{r} 406 \\ \times\ 6 \\ \hline\hline \end{array}$ (iv) $\begin{array}{r} 829 \\ \times\ 8 \\ \hline\hline \end{array}$

Multiplying a number by 10:

Examples:

(i) $3 \times 10 = 30$ (ii) $15 \times 10 = 150$ (iii) $32 \times 10 = 320$
(iv) $40 \times 10 = 400$ (v) $125 \times 10 = 1250$

When any whole number is multiplied by 10, the product can be obtained by writing a '0' at the right hand side of the given number.

When a whole number is multiplied by 100, the product can be obtained by writing '00' at the right hand side of the given number.

When a whole number is multiplied by 1000, the product is obtained by writing '000' at the right hand side of the given number.

Example 1

(i) $5 \times 100 = 500$
(ii) $23 \times 100 = 2\,300$
(iii) $40 \times 100 = 4\,000$
(iv) $138 \times 100 = 13\,800$

(v) $5 \times 1000 = 5\,000$
$25 \times 1000 = 25\,000$
$250 \times 1000 = 250\,000$

Example 2 Multiply.

(i) 276×23

$23 = 20 + 3$

$$\begin{array}{r} 276 \\ \times\ 23 \\ \hline 828 \leftarrow 276 \times 3 \\ 5520 \leftarrow 276 \times 20 \\ \hline 6348 \end{array}$$

(ii) 709×58

$58 = 50 + 8$

$$\begin{array}{r} 709 \\ \times\ 58 \\ \hline 5672 \leftarrow 709 \times 8 \\ 35450 \leftarrow 709 \times 50 \\ \hline 41122 \end{array}$$

(iii) Multiplying by a multiple of 10 can be done as follows.

$251 \times 50 \longrightarrow 251 \times 5 = 1\,255$
$\longrightarrow 251 \times 50 = 12\,550$
$412 \times 40 \longrightarrow 412 \times 4 = 1\,648$
$412 \times 40 = 16\,480$

(iv) That is to multiply the number by the number at the tens place and write a zero(0) at the right hand end.

$275 \times 60 \longrightarrow 275 \times 6 = 1\,650$
$275 \times 60 = 16\,500$

Multiplying 251 by 50 → multiply 251 by 5 and write a 0 at the right end.

Activity 3.7

Rewrite and fill in the blanks.

1. 35 × 10 = ... 2. 350 × 10 = ... 3. 25 × 100 = ...

4. 200 × 100 = ...

5. $\begin{array}{r} 25 \\ \times\ 18 \\ \hline \\ \hline \end{array}$

6. $\begin{array}{r} 384 \\ \times\ 20 \\ \hline \\ \hline \end{array}$

7. $\begin{array}{r} 305 \\ \times\ 35 \\ \hline \\ \hline \end{array}$

8. $\begin{array}{r} 928 \\ \times\ 56 \\ \hline \\ \hline \end{array}$

9. $\begin{array}{r} 487 \\ \times\ 75 \\ \hline \\ \hline \end{array}$

10. $\begin{array}{r} 895 \\ \times\ 90 \\ \hline \\ \hline \end{array}$

Exercise 3.3

1. Rewrite and fill in the blanks.

   (i) 879 × 1 = ... (ii) 53 × 10 = ... (iii) 25 × 100 = ...
   (iv) 60 × 1000 = ... (v) 502 × 1000 = ...

2. Multiply.

   (i) 25 × 9 (ii) 450 × 8 (iii) 55 × 12
   (iv) 125 × 38 (v) 515 × 25 (vi) 805 × 47
   (vii) 340 × 54 (viii) 2015 × 36 (ix) 5115 × 29
   (x) 2110 × 755

3. Rewrite by filling the blank cages.

   (i) $\begin{array}{r} \square 8 \\ \times\ 2\ 0 \\ \hline 9\ \square\square \\ \hline \end{array}$

   (ii) $\begin{array}{r} \square 3 \\ \times\ 8\ \square \\ \hline 42\square\square \\ \hline \end{array}$

   (iii) $\begin{array}{r} 5\square \\ \square 4 \\ \hline \square 0\ 8 \\ 1\ 0\ 4 \\ \hline \square\square 4\ 8 \\ \hline \end{array}$

   (iv) $\begin{array}{r} 2\ \square\ 9 \\ \times\ \ 2\ \square \\ \hline 2\ 5\ 9 \\ \square 1\ \square \\ \hline \square 4\ \square 9 \\ \hline \end{array}$

4. The total number of students in Nimal's class is 42. What is the total number of exercise books that should be given to them at the rate of 15 exercise books per student?

5. A "Shramadana" was held at Piyal's school with the participation of 158 students. Each student washed 15 chairs. What is the total number of chairs washed by the students?

3.4 Division

A parcel of mangoes was sent to Vidath's house by his uncle. There were 30 mangoes in it. There are 6 members in Vidath's family. Vidath's mother instructed Vidath to distribute mangoes equally among the family members. Vidath made 6 heaps by placing 1 mango at a time in each heap.

When first mango is given to each member, 30 – 6 = 24 mangoes remained.
When he made the second heap, 24 – 6 = 18 mangoes remained.
When he made the third heap, 18 – 6 = 12 mangoes remained.
When he made the fourth heap, 12 – 6 = 6 mangoes remained.
When he made the fifth heap, 6 – 6 = 0 mangoes remained.

As he had placed 1 mango in each heap 5 times, each heap has 5 mangoes.

Division is repeated subtraction.

Let us find an easy way to distribute the mangoes.

Number of mangoes = 30
Number of persons = 6
Number of mangoes each person gets = 30 ÷6

$$= 6\overline{)30} \text{ or } \begin{array}{r} 5 \\ 6\overline{)30} \\ 30 \\ \hline 0 \end{array}$$

$$5$$

Number of mangoes each person gets = 5

It is easier to find the answer by dividing rather than by repeating subtraction.

Examples :

Divide (i) 54 ÷ 9

$$9\overline{)54} \quad \text{or} \quad \begin{array}{r} 6 \\ 9\overline{)54} \\ 54 \\ \hline 0 \end{array}$$

$$6$$

Divide (ii) 72 ÷ 8

$$8\overline{)72} \quad \text{or} \quad \begin{array}{r} 9 \\ 8\overline{)72} \\ 72 \\ \hline 0 \end{array}$$

$$9$$

Divide (iii) $70 \div 7$

$$7\overline{)70} \quad \text{or} \quad 7\overline{)\begin{array}{r}10\\70\\70\\0\end{array}}$$

Activity 3.8

1. Divide the numbers given below.

(i) $24 \div 6$ (ii) $50 \div 10$ (iii) $84 \div 12$

2. Rewrite and fill in the blank cages.

(i) $5 \times \square = 40$ (ii) $6 \times \square = 54$ (iii) $\square \times 7 = 56$

Example 1

Among how many students can 684 biscuits be distrubuted, giving 6 biscuits to each student?

$$6\overline{)\begin{array}{r}114\\684\\6\downarrow\\08\\6\downarrow\\24\\24\\0\end{array}}$$

The number of students is 114.

Example 2

458 coconuts were distributed equally among 8 houses, so that each house gets a whole number of coconuts. Find how many coconuts were given to each house and how many were left.

$$8\overline{)\begin{array}{r}57\\458\\40\downarrow\\58\\56\\2\end{array}}$$

Each house got 57 coconuts and 2 left.

When one number is divided by another number, the result obtained is called the " quotient". What is left is called the "remainder".

In the example 1, the quotient is 114 and the remainder is 0.

In the example 2, the quotient is 57 and the remainder is 2.

Activity 3.9

1. Find the quotient and the remainder.

   (i) 455 ÷ 7 (ii) 584 ÷ 8 (iii) 874 ÷ 5 (iv) 682 ÷ 6

2. If 155 marbles are distributed among 6 children, how many marbles will each get? What is the remainder ?

Now let us learn how to divide by multiples of 10 like 10, 50, 300, and 1000.

Dividing by 10.

When dividing a number with 0 at the units place by 10, the 0 at the right hand side of the divisor can be removed.

Examples: (i) 320 ÷ 10 = 32
(ii) 500 ÷ 10 = 50
(iii) 4050 ÷ 10 = 405
(iv) 5600 ÷ 10 = 560

Dividing a number with 00 at the tens place and units place by 100:

300 ÷ 100 = 3; here, the 00 at the right hand side of the dividend can be removed.

Examples: (i) 600 ÷ 100 = 6
(ii) 6800 ÷ 100 = 68
(iii) 7 200 ÷ 100 = 72

Dividing a multiple of 10 by 10, may be done by removing the last digit, (0) of the dividend.

Dividing a multiple of 100 by 100 may be done by removing the last two digits (00) of the dividend.

Activity 3.10

1. Rewrite and fill in the blank cages.

   (i) 310 ÷ 10 = ☐ (ii) 6700 ÷ 10 = ☐
   (iii) 500 ÷ 100 = ☐ (iv) 8200 ÷ 100 = ☐
   (v) 8000 ÷ 100 = ☐

2. Write the suitable number in the blank cages.

(i) $70 \div \square = 7$ (ii) $\square \div 10 = 36$ (iii) $\square \div 100 = 48$

Consider the divisions given below.

1. $416 \div 13$

$$\begin{array}{r} 32 \\ 13\overline{)\,416} \\ 39 \\ \hline 26 \\ 26 \\ \hline 0 \end{array}$$

The quotient 32, remainder 0

2. $512 \div 17$

$$\begin{array}{r} 30 \\ 17\overline{)\,512} \\ 51 \\ \hline 02 \\ 0 \\ \hline 2 \end{array}$$

The quotient 30, remainder 2

Exercise 3.4

1. Find the quotient and the remainder if any.

(i) $378 \div 9$
(ii) $518 \div 8$
(iii) $4580 \div 12$
(iv) $520 \div 17$
(v) $215 \div 20$
(vi) $589 \div 16$
(vii) $4682 \div 23$
(viii) $3148 \div 15$

2. Wimala's class was chosen as the cleanliest classroom in the school. Wimala who was the class monitor has received a parcel of 718 toffees. The total number of students in the class is 25. If toffees are equally distributed among them, how many toffees will each of them get? Will there be any remainder?

3. Rewrite filling the blank cages with +, -, × or ÷ signs.

(i) $8 \square 5 = 13$ (ii) $13 \square 3 = 10$ (iii) $32 \square 4 = 8$

(iv) $(8 \square 6) \div 4 = 12$ (v) $24 \square 3 + 4 = 12$ (vi) $5 + (8 \square 2) = 9$

Additional exercises

1. Add

(i) $35\,648 + 19\,432$ (ii) $260\,492 + 359\,208$ (iii) $1\,250\,632 + 3\,425\,248$

2. Subtract.

(i) 687 892 − 352 471

(ii) 3 245 038 − 1 352 419

(iii) 4 620 032 − 2 398 754

3. Multiply.

(i) 675 × 10 (ii) 2 048 × 100 (iii) 1 972 × 1 000

4. Multiply.

(i) 378 × 27 (ii) 1 048 × 54 (iii) 35 624 × 68

5. Find the quotient and the remainder in each division.

(i) 372 ÷ 8 (ii) 6 954 ÷ 12 (iii) 2 695 ÷ 25

6. Rewrite filling the blank cages.

(i) 1 8□2 + 3 □5 8 = □ 9 3□

(ii) □ 6□ 5 + 2 3 4□ = 1 2 □ 2 4

(iii) 5 0 □ 8 + □4□ = □ 4 2 5

7. A train can accomodate 725 passengers. Find the total number of passengers that can be accomodated in 12 such trains.

8. A sum of Rs. 25 is collected from each student for the sportsmeet. Find the amount of money collected from 378 students for this sportsmeet?

9. The maximum number of students that can be admitted to a Grade 6 class in a school is 40. How many classes should there be in that school to admit 280 Grade 6 students?

10. The population in two towns are 12 765 and 10 986.

(i) What is the total population in the two towns?

(ii) What is the difference between the population of the two towns?

Summary

- **In addition and subtraction of numbers, the place value of number should be considered.**
- **Multiplication is repeated addition.**
- **Any number multiplied by 1 gives the same number.**
- **Any number multiplied by 0 gives 0.**
- **Division is repeated subtraction.**
- **The answer obtained when a number is divided by another number is known as the quotient. The number that left is known as the remainder.**