

Lesson-7: Division

Theme 5: What Is a Solar System?

15 Periods (40 minutes each)



Learn Better (Main Coursebook), Stay Ahead (Workbook), Book of Holistic Teaching, Book of Project Ideas, CRM signs, Poster



Animated Activities, Animation, Dictionary, eBook, Explainer Video, HOTS, Maths Lab, Infographic, Mental Maths, Quiz, Slideshow, Quick Maths, Test Generator

Confirming better

I keep my surroundings clean.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand division as equal grouping and sharing.
- to apply division in real-life contexts like distributing and organising.
- to strengthen problem-solving through multiple division strategies, including repeated subtraction and number lines.
- to develop fluency in division facts and related multiplication tables.
- to use kinaesthetic, auditory and pictorial learning methods for better comprehension.
- to encourage peer discussions and collaborative problem-solving.
- to build confidence and persistence in mathematical thinking.

Methodology

Period 1

Teacher: Good morning, students. How are you today?

SHOULD DO

5 MIN.



Teacher: Today, we are going to start a new chapter division. You have already studied this chapter in the previous grade. Let us begin with a fun activity.

Teacher: I will say a number and you will tell me how many equal groups we can make. Ready?

Teacher: If I have 12 apples and I want to divide them equally among 3 friends, how many apples will each friend get?

Teacher: Yes, $12 \div 3 = 4$. Each friend will get 4 apples.

Teacher: Let us try another one. If I have 20 fruits and I share them equally among 5 people, how many chocolates will each person get?

Teacher: Yes, $20 \div 5 = 4$. Each person will get 4 fruits.

Teacher: Well done. Division helps us to share things equally.

important to keep our surroundings clean?

Teacher: Yes, a clean environment keeps us healthy and makes us feel happy.

Teacher: What happens if we throw garbage on the ground instead of in the dustbin?

Teacher: Correct, it makes the place dirty and can spread diseases.

Teacher: How can we keep our surroundings clean?

Teacher: Yes, by throwing waste in the dustbin, cleaning our desks and not littering.

Teacher: Let us all say together: I keep my surroundings clean.

SHOULD DO

10 MIN.



Teacher: Great. Now, let us start learning about division in a fun way.

Teacher: We will begin a new chapter, Division. We are going to use a KWL chart to help us organise our thoughts and learning. I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format in your notebooks.

K	W	L

Teacher: Take a few minutes to think and write. If you have any questions, feel free to ask.

Teacher: You all did an amazing work in this activity. Let us move to Re-KAP activities. We will use Kinaesthetic, Auditory and Pictorial activities today to make our learning exciting. Let us start with the Kinaesthetic activity.

Confirming better

Confirming better I keep my surroundings clean.

PLH 79

Teacher: Before we continue, let us remind ourselves of an important habit: I keep my surroundings clean.

SHOULD DO

5 MIN.



Teacher: Why do you think it is

 You may show the **eBook** given on digital platform.

Kinaesthetic

Kinaesthetic

Work in groups of 5, collect some erasers and sharpeners from your group members. Each group will divide the collected items equally among themselves. If a group is unable to divide the items equally, they will stand. The group that successfully divides the items equally will sit down. Discuss why some groups could or could not share equally.

79

Teacher: Everybody, please open page 79 in your Main Coursebook. Who will read and explain the activity?

(Scaffold the students to complete the activity.)

Teacher: Excellent teamwork. This activity helped us understand subtraction through movement.

MUST DO

10 MIN.

Auditory

Auditory*

Listen to your teacher carefully. Answer the questions in your notebook.


79

Teacher: Now, listen carefully as I read out a set of questions.

Teacher: There are 5 girls and 45 toffees. How many toffees will each girl get?

Teacher: A vegetable seller puts 36 carrots equally in 6 baskets. How many carrots did the vegetable seller put in each basket?

Teacher: Great effort, everyone. Now, let us explore the pictorial activity.

 You may show the **eBook** given on the digital platform.

MUST DO

5 MIN.

Pictorial

Pictorial PS

Look at the pictures. Make equal groups of the objects given below. Write your answers in the boxes. One has been done for you.

-  2 groups of 4 each
-  groups of each
-  groups of each

79

Teacher: Look at the pictures in your book on page 79.

Teacher: Make equal groups of the objects given below. Write your answers in boxes. One has been done for you.

Teacher: Count the total number of objects and divide them into equal groups.

MUST DO

5 MIN.

Teacher: Yes, well done. Division helps us share things equally.

Teacher: Well done, everyone. You all worked hard today. Let us end the session with a big round of applause for your efforts. See you in the next period. Keep practising.

 You may show the **Dictionary** given on the digital platform.

Differentiated Activities

110 km/hr



There are 48 balloons. Divide them equally into 6 groups. How many balloons are there in each group? Similarly create your own question and share it with your classmates.

80 km/hr



There are 16 strawberries. Divide them into 4 equal groups. How many strawberries are there in each group?

40 km/hr



There are 20 apples. Make 2 equal groups. How many apples per group?

Home Task

Take 30 small objects (big beads or stickers) and divide them into 5 equal groups. Count and write how many are in each group.

Period 2

Teacher: Good morning, students. How are you today?

Teacher: Let us begin by recalling what we learnt about division in the last period.

Teacher: I will say a number and you have to tell me how many equal groups we can make.

Teacher: If I have 24 marbles and I divide them equally among 4 children, how many marbles will each child get?

Teacher: Yes, 24 divided by 4 is 6. Each child gets 6 marbles.

Teacher: Let us try another one. If there are 30 toys and I want to divide them into 5 equal groups, how many toys will be in each group?

Teacher: Yes, 30 divided by 5 is 6. Well done.

Teacher: If you have 30 toys. Can you find three different ways to group them equally?

Teacher: Great work. Now, let us move on to an interesting discussion.

SHOULD DO

5 MIN.

Interacting better



Interacting better

Write any two division facts for the numbers 5, 12 and 60. For example, $60 \div 12 = 5$. Swap your answers with your partner and solve each other's division facts.

ICL

80

Teacher: Open your books to page 80 and look at the activity given under 'Interacting better'.

MUST DO

5 MIN.

Teacher: Look at the example in your book. You need to write two division facts for the numbers 5, 12 and 60.

Teacher: For example, $60 \div 12 = 5$.

Teacher: Now, write your own division facts and swap your answers with your partner. Solve each other's division facts.



Teacher: Before we read the story, look at the pictures on page 80. What do you see?

MUST DO

20 MIN.

Teacher: Yes, the children are visiting a planetarium. What do you think they are learning about?

Teacher: Look at the last picture. What do you think they are trying to calculate?

Teacher: Now, let us read and find out.

Teacher: Open your books to page 80. Take turns reading the story aloud.

Teacher: What did the children see inside the planetarium?

Teacher: Yes, they saw a spacecraft and many rows of seats.

Teacher: The teacher told them that there were 120 seats. How did they find out how many rows there were?

Teacher: Yes, they divided 120 by 12. What was the answer?

Teacher: Correct, $120 \div 12 = 10$. That means there are 10 rows.

Teacher: What would happen if there were 180 seats, and each row had 12 seats? How would we find the number of rows?

Teacher: Yes, we divide 180 by 12.

Teacher: This story helps us see how division is used in real

life. We use it to arrange things in equal groups. Well done, everyone. Now, let us learn more about division.

You may show the **Animation** given on the digital platform.

What Division Means

WHAT DIVISION MEANS

Division means sharing or making groups. The symbol used for division is \div .
Terms in division

81	20	\div	5	=	4
	DIVIDEND		DIVISOR		QUOTIENT
	(the number to be divided)		(the number by which to divide)		(the answer)

Teacher: Now, let us understand some important terms in division.

MUST DO

10 MIN.

Teacher: Division means sharing or making groups. The symbol used for division is \div .

Teacher: Let us look at the example in the book:

$$20 \div 5 = 4$$

Teacher: Here, 20 is the dividend (the number being divided).

Teacher: 5 is the divisor (the number by which we divide).

Teacher: 4 is the quotient.

Teacher: Let us try an example. If 35 apples are shared among 5 children, what is the division sentence?

Teacher: Yes, $35 \div 5 = 7$.

Teacher: Well done, everyone. You all worked very hard today. Give yourselves a big round of applause. See you in the next class. Keep practising division.

Differentiated Activities

110 km/hr



Imagine you are designing a new planetarium. There are 180 seats in the theatre. If each row has 15 seats, how many rows will you need?

80 km/hr



You are an astronaut organising supplies for a mission. There are 72 food packets, and they must be packed into 9 boxes equally. How many packets go into each box?

40 km/hr



There are 15 space helmets to be divided among 5 astronauts. How many helmets does each astronaut get?

Home Task

Write two real-life examples of division that you see at home (e.g., sharing fruits, arranging clothes, distributing books).

Period 3

Teacher: Good morning, students. How are you today?

SHOULD DO

5 MIN.

Teacher: Let us quickly recall what we learnt in the previous period.

Teacher: What do we call the number being divided in a division sentence?

Teacher: Yes, it is the dividend.

Teacher: What do we call the number by which we divide?

Teacher: Yes, it is the divisor.

Teacher: Now, let us move on to a new way of understanding division.

Division As Repeated Subtraction

DIVISION AS REPEATED SUBTRACTION

How many 8s are there in 24?

Find out how many times 8 can be subtracted from 24.

8 can be subtracted 3 times from 24.

So, there are 3 eights in 24.

$$\begin{array}{r} 24 \div 8 = 3 \\ \text{DIVIDEND} \quad \text{DIVISOR} \quad \text{QUOTIENT} \end{array}$$

	2	4	
-	8		1
	1	6	
-	8		2
	8	8	
-	8		3
	0		

Teacher: We can think of division as repeated subtraction. Instead of adding, we keep subtracting the divisor from the dividend until we reach zero.

Teacher: Look at the example in your book. How many times can we subtract 8 from 24?

Teacher: Yes, we subtract 8 three times:

$$24 - 8 = 16$$

$$16 - 8 = 8$$

$$8 - 8 = 0$$

Teacher: So, $24 \div 8 = 3$.

Teacher: Let us solve a few more using repeated subtraction.

You may show the **Explainer Video** given on digital platform.

1 Use repeated subtraction to find the quotients. Write the answers in your notebook.

a. $54 \div 9$
b. $42 \div 6$
c. $63 \div 7$
d. $64 \div 8$

81

Teacher: Everybody please open page 81 in the Main Coursebook. Read and explain Exercise 1.

Teacher: Solve the following using repeated subtraction and write the quotient.

(Guide the students to complete questions (a) and (b).)

2 Answer the following.

- a. How many 2s are there in 18? _____
- b. How many 8s are there in 56? _____
- c. How many 7s are there in 35? _____
- d. How many times can 5 be subtracted from 30? _____
- e. How many times can 6 be subtracted from 36? _____

81

Teacher: Now, answer the following questions in Exercise 2, based on repeated subtraction.

Teacher: Well done. Now, let us see another method of division using a number line.

Division On The Number Line

DIVISION ON THE NUMBER LINE

We can show division as repeated subtraction on the number line. For example, $16 \div 2$.

STEP 1: Start from 16 (the dividend).

STEP 2: Count backwards by 2 (the divisor) steps at a time, till you reach 0.

STEP 3: How many times did you count backwards? 8 times. So, $16 \div 2 = 8$.

81

Teacher: Division can also be shown on a number line using repeated subtraction.

Teacher: Look at the example in your book.

- Start at 16 (the dividend).
- Move backward by 2 (the divisor) until you reach zero.
- Count how many times you moved back.

Teacher: How many times did we jump backward?

Teacher: Yes, 8 times. So, $16 \div 2 = 8$.

You may show the **Maths Lab** given on digital platform.

Teacher: Let us now practise a few questions.

3 Divide the following. Make number lines in your notebook. Write the quotient.

a. $12 \div 2$
b. $15 \div 3$
c. $28 \div 7$
d. $30 \div 6$

81

Teacher: Draw number lines in your notebooks and solve the following using division as repeated subtraction. (Guide students to solve questions (a) and (b) of Exercise 3.)

Teacher: Well done, everyone. You did fantastic work today. Keep practising repeated subtraction and number line division at home. See you in the next class.

Differentiated Activities

110 km/hr

A time machine moves 8 years back each time from the year 2000. How many jumps will it take to reach 1920? Represent it using repeated subtraction.

80 km/hr

A runner is training on a 60-meter track and reduces their speed by 5 meters per lap. How many laps does it take for their speed to reach zero? Represent this on a number line.

40 km/hr

A child has 20 toy cars and gives away 2 at a time. How many times will they do this before running out of cars? Use repeated subtraction to solve.

Home Task

Solve questions (c) and (d) of Exercise 1 and 3 given on page 81 in the Main Coursebook.

Period 4

Teacher: Good morning, students.
How are you today?

Teacher: Let us recall what we learnt in the previous period.

Teacher: How can we use repeated subtraction to divide 20 by 4?

Teacher: Yes, by subtracting 4 repeatedly:

$$20 - 4 = 16$$

$$16 - 4 = 12$$

$$12 - 4 = 8$$

$$8 - 4 = 4$$

$$4 - 4 = 0$$

Teacher: How many times did we subtract?

Teacher: Yes, 5 times. So, $20 \div 4 = 5$.

Teacher: Well done. Today, we will see how multiplication and division are connected.


SHOULD DO

5 MIN.



Multiplication and Division

MULTIPLICATION AND DIVISION
3 plates with 4 plums on each plate.
Total number of plums are $3 \times 4 = 12$.




81

12 plums on 3 plates. Plums on each plate are $12 \div 3 = 4$.
4 plums on each plate. Plates needed are $12 \div 4 = 3$.

$3 \times 4 = 12$ $12 \div 3 = 4$
 $12 \div 4 = 3$

Multiplication Fact Division Fact

Most multiplication facts have two division facts.



82

Teacher: Look at the example in your book. There are 3 plates with 4 plums on each. How many plums are there in total?

Teacher: Yes, $3 \times 4 = 12$.

Teacher: Now, if we divide 12 plums among 3 plates, how many plums will each plate get?

Teacher: Yes, $12 \div 3 = 4$.

Teacher: What if we divide 12 plums into groups of 4?

Teacher: Yes, $12 \div 4 = 3$. Most Multiplication facts have two division facts.

Teacher: This shows that multiplication and division are inverse operations.

Teacher: Now, let us practise this using multiplication tables.

MUST DO

10 MIN.




Division using Multiplication Tables

Division using multiplication tables

Example 1: What is $42 \div 7$?

$7 \times ? = 42$
 $7 \times 6 = 42$
 $42 \div 7 = 6$


Say the 7 times table till you get 42.



Example 2: Find $45 \div 5$.

$5 \times ? = 45$
 $5 \times 9 = 45$
 $45 \div 5 = 9$

Say the 5 times table till you get 45.



Divisor \times Quotient = Dividend

82

Teacher: Look at Example 1. How do we find what $42 \div 7$ equals?

Teacher: Yes, we use the multiplication table of 7 and find the number that gives 42.

Teacher: $7 \times 6 = 42$, so $42 \div 7 = 6$.

Teacher: Now, let us solve another one together.

Teacher: Find $45 \div ? = 5$.

Teacher: Which multiplication fact of 5 gives us 45?

Teacher: Yes, $5 \times 9 = 45$. So, $45 \div 5 = 9$.

Teacher: Great work. Now, let us move on to exercises.

4 Write the division facts for the following multiplication facts, as shown.

a. $12 \times 6 = 72$ b. $5 \times 8 = 40$

$72 \div \underline{\quad} = \underline{\quad}$ $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $72 \div \underline{\quad} = \underline{\quad}$ $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

c. $4 \times 9 = 36$ d. $7 \times 12 = 84$

$\underline{\quad} \div \underline{\quad} = \underline{\quad}$ $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$ $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

82

Teacher: Look at the multiplication facts in Exercise 4.

Teacher: The first one is $12 \times 6 = 72$.

From this, we can write two division facts.

Teacher: What happens when we divide 72 by 6?

Teacher: Yes, $72 \div 6 = 12$.

Teacher: Now, what happens when we divide 72 by 12?

Teacher: Yes, $72 \div 12 = 6$.

Teacher: Complete the next two questions using the same method.

5 Find the quotients.

a. $18 \div 3 = \underline{\quad}$ b. $54 \div 9 = \underline{\quad}$ c. $36 \div 9 = \underline{\quad}$ d. $56 \div 7 = \underline{\quad}$

82

Teacher: Let us look at the first question of Exercise 5, $18 \div 3$.

Teacher: Think of the multiplication table of 3. What number multiplied by 3 gives 18?

Teacher: Yes, $3 \times 6 = 18$. So, $18 \div 3 = 6$.

Teacher: Now, look at question (b): $54 \div 9$.

Teacher: What number multiplied by 9 gives 54?

Teacher: Yes, $9 \times 6 = 54$. So, $54 \div 9 = 6$.

Teacher: Solve the question (c) using the same method.

6 Find the divisors.

a. $18 \div \underline{\quad} = 9$ b. $60 \div \underline{\quad} = 6$ c. $40 \div \underline{\quad} = 5$ d. $27 \div \underline{\quad} = 3$

82

Teacher: Well done, everyone. Now, let us move on to the next exercise. Open your books to Exercise 6. Find the Divisors.

Teacher: Look at the first question: $18 \div \underline{\quad} = 9$.

Teacher: What number should we divide 18 by to get 9?

Teacher: Yes, the answer is 2, because $18 \div 2 = 9$.

(Guide students to complete question (b) and (c) in the similar manner.)

Teacher: Excellent work, everyone. You have done fantastic work today. Let us all give ourselves a big round of applause. Keep practising and I will see you in the next class.

Differentiated Activities

110 km/hr



Take a multiplication fact from your book and rewrite it as two division facts. Do this for five different multiplication facts.

80 km/hr



Create three division equations using the numbers 36, 9 and 4. Reverse them to make three multiplication equations.

40 km/hr



Solve these equations by finding the missing number:

- $? \times 5 = 25$
- $6 \times ? = 36$

Home Task

Solve question (d) of Exercise 4,5 and 6 given on page 82 in the Main Coursebook.

Period 5

Teacher: Good morning, students. How are you today?

Teacher: Today, we will begin with a quick puzzle. I will give you some clues, and you need to guess the number I am thinking of. Ready?

SHOULD DO

5 MIN.



Teacher: I am a number. When you multiply me by 5, you get 35. What number am I?

Teacher: Yes, the number is 7 because $7 \times 5 = 35$. Now, what happens if we divide 35 by 7?

Teacher: Correct. $35 \div 7 = 5$. This shows that multiplication and division are connected. Let us try another one.

Teacher: I am a number. When you divide me by 4, you get 6. What number am I?

Teacher: Yes, the number is 24 because $24 \div 4 = 6$. Can we rewrite this as a multiplication fact?

Teacher: Exactly. $6 \times 4 = 24$. This is how multiplication and division are inverse operations.

Teacher: Now, let us take this a step further. If $8 \times 3 = 24$, what are the two division facts we can create from this?

Teacher: Yes, $24 \div 8 = 3$ and $24 \div 3 = 8$. Well done. Now, let us explore how multiplication helps us divide faster.

Teacher: Well done, everyone. Now, let us move on to today's lesson on properties of division and long division.

MUST DO

10 MIN.



Properties of Division

PROPERTIES OF DIVISION

- ▶ When we divide any number by 1, the quotient is the number itself.
 $3 \div 1 = 3$ $9 \div 1 = 9$ $12 \div 1 = 12$
- ▶ When we divide any number by itself, the quotient is 1.
 $4 \div 4 = 1$ $6 \div 6 = 1$ $18 \div 18 = 1$
- ▶ Dividing 0 by any number gives the quotient 0.
 $0 \div 7 = 0$ $0 \div 13 = 0$ $0 \div 15 = 0$

82

Teacher: Today, we are going to explore the properties of division using real-life situations. Let us begin.

Teacher: First, when we divide any number by 1, what do we get?

Teacher: Imagine you have 5 apples, and you want to keep all of them for yourself. If you divide 5 apples among 1 person (yourself), how many apples do you get?

Teacher: Yes, you get all 5 apples. That means $5 \div 1 = 5$.

Teacher: When we divide any number by 1, the quotient is the number itself.

Teacher: Now, what if a shopkeeper has 20 bottles of fresh juice and sells them in packs of 1 bottle per pack? How many packs will there be?

Teacher: Yes, there will be 20 packs, because $20 \div 1 = 20$.

Teacher: Now, when we divide a number by itself, what do we get?

Teacher: Imagine you and 4 friends order 5 bowls of salad and decide to share them equally. If each of you takes one whole bowl, how many people get a bowl?

Teacher: Yes, $5 \div 5 = 1$. Each person gets one bowl.

Teacher: When we divide any number by itself, the quotient is 1.

Teacher: And finally, what happens when we divide 0 by any number?

Teacher: If a chef has 0 plates of food and wants to share them among 10 people, how many plates does each person get?

Teacher: Yes, nobody gets a plate because there is nothing to share. $0 \div 10 = 0$.

Teacher: Dividing 0 by any number gives the quotient 0.

Teacher: Well done, everyone.

Now, let us move to our long division method.

MUST DO

10 MIN.



Long Division

LONG DIVISION

To do long division, arrange the dividend and divisor, as shown. Write the quotient at the top.

QUOTIENT
DIVISOR | DIVIDEND

Example 3: What is $12 \div 3$?

Think!
 $3 \times ? = 12$
 $3 \times 4 = 12$

Divisor

3	4	→ Quotient (Q)
12	→ Dividend	
- 12	→ (3×4)	
0	→ Remainder	

$12 \div 3 = 4$

Example 4: Find $32 \div 4$.

Think!
 $4 \times ? = 32$
 $4 \times 8 = 32$

4	8	→ Quotient (Q)
32	→ Dividend	
- 32	→ (4×8)	
0	→ Remainder	

$32 \div 4 = 8$

83

Teacher: Great work, everyone. Now, open your books to page 83 and look at the section on long division.

Teacher: Let us take a moment to observe the way division is written in this method. Can you see three important terms in your book? Look closely at the example given.

Teacher: What is the dividend? It is the number we are dividing. Can you find the dividend in the first example?

Teacher: Yes, 12 is the dividend in $12 \div 3$.

Teacher: Now, what do we call the number that we divide by?

Teacher: Yes, it is called the divisor. In this case, the divisor is 3.

Teacher: And what do we call the answer we get?

Teacher: Yes, it is the quotient. Here, the quotient is 4 because $3 \times 4 = 12$.

Teacher: Now, let us observe the next example in the book. Look at $32 \div 4$. Can someone tell me the dividend?

Teacher: Yes, it is 32.

Teacher: And the divisor?

Teacher: Yes, 4.

Teacher: Finally, what is the quotient?

Teacher: Yes, 8, because $4 \times 8 = 32$.

Teacher: Now, let us try solving some problems together using long division.

MUST DO

5 MIN.



Understanding better

Understanding better

1. What is $25 \div 1$?

2. What is $29 \div 29$?

3. What is $0 \div 47$?

83

Teacher: Now, let us test our understanding with some quick questions. Look at the 'Understanding better' section in your book.

(Guide students to solve the questions.)

MUST DO

10 MIN.



7 Find the quotients. Write the answers in your notebook.

a. $35 \div 5$

b. $42 \div 6$

c. $56 \div 7$

d. $63 \div 9$

83

Teacher: Well done, everyone. Now, let us move to exercise 7 in your books. Open your books to page 83 in the book.

Teacher: Let us solve these step by step. Look at the first question: $35 \div 5$.

Teacher: Think of the multiplication table of 5. What number multiplied by 5 gives us 35?

Teacher: Yes, $5 \times 7 = 35$. So, what is $35 \div 5$?

Teacher: Yes, the quotient is 7.

(Guide students to complete question (b) and (c) in the similar manner.)

Teacher: Now, exchange notebooks with your partner and check each other's work. If there are any mistakes, discuss and correct them together.

Teacher: Well done, everyone. You have worked together beautifully today. Let us all give ourselves a big round of applause. See you in the next class.

Differentiated Activities

Solve the given division problems carefully and fill in the blanks. After solving, check your answers with a partner.

110 km/hr



$168 \div 12 = \underline{\hspace{2cm}}, 324 \div 18 = \underline{\hspace{2cm}},$

$465 \div 15 = \underline{\hspace{2cm}}$

80 km/hr



$99 \div 11 = \underline{\hspace{2cm}}, 48 \div \underline{\hspace{2cm}} = 12, \underline{\hspace{2cm}} \div 8 = 1$

40 km/hr



$30 \div 5 = \underline{\hspace{2cm}}, 48 \div \underline{\hspace{2cm}} = 8, 72 \div 9 = \underline{\hspace{2cm}}.$

Home Task

Solve question (d) of Exercise 7 given on page 83 in the Main Coursebook.

Period 6

Teacher: Good morning, students.

How are you today?

Teacher: Let us begin by recalling what we learnt in the last period.

Teacher: What happens when we divide a number by itself?

Teacher: Yes, the quotient is always 1.

Teacher: What happens when we divide a number by 1?

Teacher: Yes, the quotient is the number itself.

Long Division with Remainder

Long division with remainder

When the dividend cannot be divided fully, the number that is left is called the remainder.

Example 5: Divide 9 crayons among 4 children.

$$\begin{array}{r} 2 \rightarrow \text{Quotient (Q)} \\ 4 \overline{) 9} \\ \underline{- 8} \rightarrow (4 \times 2) \\ 1 \rightarrow \text{Remainder (R)} \end{array}$$

Each child will get 2 crayons. One crayon will be left.

Remembering better

The remainder should always be smaller than the divisor.

LOTS

83

Teacher: Look at the example in your book where 9 crayons are divided among 4 children.

Teacher: How many times does 4 go into 9 completely?

Teacher: Yes, 4 goes 2 times because $4 \times 2 = 8$.

Teacher: What is left after subtracting 8 from 9?

Teacher: Yes, 1 is left, which is called the remainder.

Teacher: The quotient is 2 and the remainder is 1. Always remember, the remainder should be smaller than the divisor.

Remembering better

Teacher: Now, look at the 'remembering better' section in your book.

Teacher: It says that the remainder should always be smaller than the divisor. This means if we get a remainder that is bigger than the divisor, something went wrong in our calculation.


Teacher: Now, let us try solving a few problems together.

MUST DO

5 MIN.



8 Arrange 12 apples into groups of 5 each.



Q =

R =

83

Teacher: Look at the apples in Exercise 8. You have 12 apples, and we need to arrange them in groups of 5.

Teacher: How many full groups can we make?

Teacher: Yes, 2 groups.

Teacher: How many apples are left?

Teacher: Yes, 2 apples remain.

Teacher: Now, write the quotient and remainder in the blanks in your book.

MUST DO

10 MIN.

9 Using the long division method, find the quotients (Q) and the remainders (R). Write the answers in your notebook.

a. $17 \div 2$ b. $66 \div 7$ c. $26 \div 4$

d. $68 \div 6$ e. $38 \div 3$ f. $47 \div 2$

83

Teacher: Now, let us apply long division with remainder to solve Exercise 9. Solve these in your notebook.

Teacher: Remember to write the quotient on top and the remainder below.

Teacher: Once you are done, exchange notebooks with a partner and check each other's work.

(Guide students to complete questions (a) to (d) of Exercise 9.)

Relation among dividend, divisor, quotient and remainder

MUST DO

5 MIN.

Relation among dividend, divisor, quotient and remainder

To check the answer of a division problem, we use the following relation:

Quotient \times Divisor + Remainder = Dividend

Example 6: Check whether the following division is correct or incorrect.

Divisor \rightarrow 7

5	→ Quotient
37	→ Dividend
- 35	
2	→ Remainder

Check:

Quotient \times Divisor + Remainder = Dividend

$(5 \times 7) + 2 = 37$

Thus, the quotient and the remainder are correct.

84

Teacher: Now, let us understand how to check if our division is correct using this formula:

quotient \times divisor + remainder = dividend

Teacher: Look at the example in your book.

Teacher: The division is $37 \div 7$. The quotient is 5 and the remainder is 2.

Teacher: Let us check if it is correct using the formula:
 $5 \times 7 + 2 = 35 + 2 = 37$

Teacher: Yes, we correctly solved it.

Remembering better

Teacher: Now, look at the 'Remembering better' section. It says that in addition, subtraction and multiplication, we go from right to left, but in division, we go from left to right.

Teacher: This means that when we check our answer using multiplication, we always start from the quotient and work back to the dividend.

Teacher: Now, let us try this in Exercise 10.

MUST DO

5 MIN.

10 Find the dividend in each of the following.
 (HINT: Quotient \times Divisor + Remainder = Dividend)

	Quotient	Divisor	Remainder	Dividend
a.	5	6	2	$5 \times 6 + 2 = 30 + 2 = 32$
b.	4	9	1	
c.	7	8	4	

84

Teacher: Everyone please open page 84 in the books. Solve the following problems using the relation quotient \times divisor + remainder = dividend.

Teacher: Once done, check your answers with a partner.

Teacher: Well done, everyone. You all worked really well today. Give yourselves a big round of applause. See you in the next class.

Differentiated Activities

110 km/hr

Write three division equations where the quotient is not a whole number (i.e., includes a remainder). Then, check your answers using the formula quotient \times divisor + remainder = dividend.

80 km/hr

Work in pairs. One student will create a division problem with a remainder, and the other will solve it and check the answer using the relation quotient \times divisor + remainder = dividend. Take turns and complete three problems each.

40 km/hr

Use small objects like counters or beads. Take 10 objects and divide them into groups of 3. Count how many full groups you can make and how many are left as the remainder. Write down the quotient and remainder. Try the same with 15 objects and 4 groups.

Home Task

Solve question (e) and (f) of Exercise 9 given on page 83 in the Main Coursebook. Write the answers neatly in the notebook.

Period 7

Teacher: Good morning, students. How are you today?

Teacher: Before we begin, let us recall what we learnt in the previous period.

Teacher: How can we check if our division is correct?

Teacher: Great, we use the relation quotient \times divisor + remainder = dividend.

SHOULD DO

5 MIN.

Teacher: Now, let us play a quick game. I will say a division statement and you have to answer as quickly as possible. Ready?

Teacher: What is $24 \div 2$?

Teacher: Yes, the answer is 12. Fantastic thinking.

Teacher: What is $63 \div 3$?

Teacher: Yes, the answer is 21. Brilliant work.

Teacher: In $37 \div 7$, what is the remainder?

Teacher: Correct, the remainder is 2. You are doing great.

Teacher: If quotient = 5, divisor = 6 and remainder = 2, what is the dividend?

Teacher: Yes, the answer is 32, because $5 \times 6 + 2 = 32$. Amazing effort.

Teacher: Well done, everyone. You are thinking like mathematicians. Now, open your books to page 84 and let us begin today's lesson.

MUST DO

10 MIN.



Dividing 2 - and 3 - Digit Numbers

Without regrouping

Teacher: Look at example 7 in your book.

Teacher: The division problem is $48 \div 2$.

Teacher: First, arrange the numbers in the long division form.

Teacher: What is the first step?

Teacher: Yes, divide the tens. $4 \div 2 = 2$, so we write 2 on top.

Teacher: What do we do next?

Teacher: Yes, multiply and subtract. We get 0 in the tens place.

Teacher: Now, copy down the 8. Divide $8 \div 2 = 4$.

Teacher: So, the quotient is 24 with no remainder.

(Discuss example 8 in the similar manner.)

Teacher: Now, let us check our understanding.

MUST DO

5 MIN.



Understanding better

Understanding better

1. Can the remainder be greater than the divisor?
2. Can the quotient be greater than the dividend?
3. Can the quotient be greater than the divisor?

84

Teacher: Now, look at the 'understanding better' section in your book.

Teacher: Discuss these questions with a partner: Can the remainder be greater than the divisor?

Teacher: Think and discuss. After a few minutes, we will share our answers.

MUST DO

10 MIN.



With regrouping

Teacher: Now, open your book to example 9.

Teacher: This is $75 \div 3$, but here we need to regroup.

Teacher: Let us divide step by step.

Teacher: First, divide the tens. What do we get when we divide 7 by 3?

Teacher: Yes, 3 fits 2 times, so we write 2 in the quotient.

Teacher: Now, subtract. $7 - 6 = 1$. Bring down the 5.

Teacher: What is $15 \div 3$?

Teacher: Yes, 5. So, the quotient is 25 with no remainder.

Teacher: Let us try another example together: $169 \div 9$.

Teacher: First, divide 16 by 9. What do we get?

Teacher: Yes, 1. Now subtract and we get 7. Bring down 9.

Teacher: What is $79 \div 9$?

Teacher: Yes, 8 remainder 7. So, the quotient is 18 and the remainder is 7.

MUST DO

5 MIN.



Poster

Mathematics Theme 5: What Is a Solar System?

Division

Step 1 Arrange the blocks in ones, tens and hundreds.

Step 2 Regroup the blocks in hundreds and tens.

Step 3 Bring down ones.

Step 4 Regroup 1 ten and 2 ones. Divide 12 ones by 12.

Teacher: Everyone, look at the poster on division. It shows how to divide $252 \div 12$ step by step using blocks.

Teacher: In step 1, we arrange the number into hundreds, tens and ones. Since 200 cannot be divided by 12, we regroup them into tens.

Teacher: In step 2, we now have 25 tens. How many times does 12 fits into 25?

Teacher: Yes, 2 times. We subtract 24 and 1 is left.

Teacher: In step 3, we bring down the ones, making 12.

Teacher: In step 4, $12 \div 12 = 1$, so we write 1 in the quotient.

Teacher: Our final answer is 21. This method helps us divide large numbers step by step. Who would like to try another example?

MUST DO

5 MIN.

Period 8

SHOULD DO

5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Before we begin, let us recall what we learnt in the previous period.

Teacher: What happens when we divide a 2-digit or 3-digit number without regrouping?

Teacher: Wonderful, we divide step by step, starting with the largest place value and moving to the next.

Teacher: How do we know when regrouping is needed in division?

Teacher: Yes, when a number in a place value column is smaller than the divisor, we regroup to make division possible.

Teacher: Now, let us do a quick warm-up. Answer these questions without using your books.

1. What is $84 \div 3$?
2. What is $65 \div 2$?
3. In $169 \div 9$, what is the remainder?
4. If quotient = 7, divisor = 5 and remainder = 3, what is the dividend?

Teacher: Excellent, everyone. Now, open your books to page 85 and let us begin today's lesson.

MUST DO

10 MIN.

Dividing 4-Digit Numbers

DIVIDING 4-DIGIT NUMBERS

Example 11: Divide 4686 by 6.

$$\begin{array}{r} 781 \\ 6 \overline{) 4686} \\ \underline{-42} \\ 48 \\ \underline{-48} \\ 06 \\ \underline{-06} \\ 0 \end{array}$$

- STEP 1: Divide the digits of thousands and hundreds together by 6.
STEP 2: Copy down the tens and divide.
STEP 3: Copy down the ones and divide.

$Q = 781, R = 0$

Check: $781 \times 6 + 0 = 4686$ (Dividend)

Remembering better
If the number in the thousands place is smaller than the divisor, then we divide by both the digits at the thousands and hundreds places.

Example 12: Divide 6317 by 5.

$$\begin{array}{r} 1263 \\ 5 \overline{) 6317} \\ \underline{-5} \\ 13 \\ \underline{-10} \\ 31 \\ \underline{-30} \\ 17 \\ \underline{-15} \\ 2 \end{array}$$

$Q = 1263, R = 2$

Check: $1263 \times 5 + 2 = 6317$ (Dividend)

Calculating better
To divide a number by 9.
Example: Divide 1421 by 9.
Mark the digits as I, II, III and so on.
I II III IV
1 4 2 1
Then write the following:
 $I = 1$
 $I + II = 1 + 4 = 5$
 $I + II + III = 1 + 4 + 2 = 7$
 $I + II + III + IV = 1 + 4 + 2 + 1 = 8$
We get the digits 1, 5, 7 and 8.
The last digit becomes the remainder and remaining digits make the quotient.
So, $Q = 157$ and $R = 8$.
Check the answer and verify.

Teacher: Now, open your books to Exercise 11 and look at questions a, b, c and d. Let us solve them step by step.

Teacher: Look at question a, $36 \div 3$. What is the first step?

Teacher: Yes, we divide 36 by 3. What do we get?

Teacher: Correct, the answer is 12.

(Guide students to solve questions (a) to (d) given on page 86 in the book.)

Teacher: Well done, everyone. You have worked really well today. Give yourselves a big round of applause. See you in the next class.

Differentiated Activities

Solve each division problem step by step. Pass your answer to the next student for checking before moving to the next question. Convert each division problem into its corresponding multiplication fact.

110 km/hr

$168 \div 12 = ?$, $324 \div 18 = ?$, $465 \div 15 = ?$

80 km/hr

$132 \div 11 = ?$, $144 \div ? = 12$, $? \div 8 = 15$

40 km/hr

$30 \div 5 = ?$, $48 \div ? = 8$, $72 \div 9 = ?$

Home Task

Solve questions (e) to (h) of Exercise 11 given on page 86 in the Main Coursebook. Write the answers neatly in the notebook.

Teacher: Yes, 8, because $6 \times 8 = 48$. Now bring down 6.

Teacher: What is $6 \div 2$?

Teacher: Yes, 1, because $6 \times 1 = 6$.

Teacher: So, the quotient is 781 and the remainder is 0.
(Discuss Example 12 in the similar manner.)

Remembering better

Teacher: Now, look at the 'remembering better' section in your book.

Teacher: It says if the number in the thousands place is smaller than the divisor, we divide using the first two digits together.

Teacher: This is important because it helps us handle large numbers correctly.

Teacher: Who can explain this rule in your own words?

MUST DO

5 MIN.

Calculating better

Teacher: Now, look at the 'Calculating better' section in your book.

Calculating better **KoI**

To divide a number by 9.
Example: Divide 1421 by 9.
Mark the digits as I, II, III and so on.

I	II	III	IV
1	4	2	1

Then write the following:

$I = 1$
 $I + II = 1 + 4 = 5$
 $I + II + III = 1 + 4 + 2 = 7$
 $I + II + III + IV = 1 + 4 + 2 + 1 = 8$

We get the digits 1, 5, 7 and 8.
The last digit becomes the remainder and remaining digits make the quotient.
So, $Q = 157$ and $R = 8$.
Check the answer and verify.

86

Teacher: This method shows a trick for dividing by 9. Let us try it together.

Teacher: Look at $1421 \div 9$. The digits are 1, 4, 2 and 1.

Teacher: We add them step by step:

$$1 + 4 = 5$$

$$5 + 2 = 7$$

$$7 + 1 = 8$$

Teacher: The last digit, 8, is the remainder and the other digits 157 make the quotient.

Teacher: This is an interesting way to check division. Let us try one more example together.

MUST DO

10 MIN.

12 Divide the following. Write the answers in your notebook. Check your answers.

a. $3716 \div 3$

b. $5719 \div 6$

c. $7118 \div 5$

d. $8072 \div 9$

86

Teacher: Now, solve Exercise 12 given on page 86 in the books.

Teacher: Work through the steps carefully and check your answers using the relation $\text{quotient} \times \text{divisor} + \text{remainder} = \text{dividend}$.

Teacher: When you are done, swap notebooks with a partner to check.

(Guide students to solve questions (a) to (c) in the similar manner.)

Dividing 3- and 4-Digit Numbers by 10 and 100

DIVIDING 3- AND 4-DIGIT NUMBERS BY 10 AND 100

Example 13: Divide 568 by 10.

STEP 1: Divide 5 hundreds and 6 tens which is equal to 56 tens by 10. $56 - 50 = 6$

STEP 2: Copy down 8 ones. Divide 68 by 10. $68 - 60 = 8$

86 **Q = 56, R = 8**

	5	6	8
10	5	6	8
-	5	0	
		6	8
-		6	0
			8

Teacher: Now, open your books to page 86.

Teacher: Look at example 13:

$$568 \div 10.$$

Teacher: What happens when we divide by 10?

Teacher: Yes, the digits shift to the left and the last digit becomes the remainder.

Teacher: $568 \div 10 = 56$ remainder 8.

Teacher: Now, let us try another one: $4000 \div 100$.

Teacher: What do we get?

Teacher: Yes, 40, because dividing by 100 moves the digits two places left.

Teacher: Great work today, everyone. You all did a fantastic work. Let us give ourselves a big round of applause. See you in the next class.

Differentiated Activities

110 km/hr

Solve these long division problems and verify your answers using the relation $\text{quotient} \times \text{divisor} + \text{remainder} = \text{dividend}$:

1. $9634 \div 14 = ?$

2. $8272 \div 16 = ?$

80 km/hr

Complete the following division problems and check your answers using multiplication:

1. $4820 \div 12 = ?$

2. $7600 \div 100 = ?$

Work in pairs and explain the steps aloud while solving. One student solves while the other checks. Swap roles for the next question.

40 km/hr

Solve these division problems:

1. $600 \div 10 = ?$

2. $4800 \div 100 = ?$

3. $725 \div 5 = ?$

Home Task

Solve question (d) of Exercise 12 given on page 86 in the Main Coursebook.

Period 9

Teacher: Good morning, students.
How are you today?

SHOULD DO

5 MIN.

Teacher: Let us start with a quick challenge. I will say a number and you have to tell me what happens when we divide it by 10 or 100. Ready?

Teacher: $482 \div 10$. What is the quotient and remainder?

Teacher: Great, the quotient is 48 and the remainder is 2.

Teacher: Now, $769 \div 100$. What happens here?

Teacher: Yes, the quotient is 7 and the remainder is 69.

Teacher: If a number ends in zero, what will be the remainder when dividing by 10?

Teacher: Correct, it will be zero. Fantastic thinking.

Teacher: Well done, everyone. Now, open your books to page 86 and let us begin today's lesson.

MUST DO

10 MIN.

Short Method

Teacher: Look at the short method section in your book.

Teacher: We have already learnt how to divide by 10 and 100. Today, let us apply that understanding to new problems.

Short method

There is only one zero in 10. So, when dividing by 10, the digit at the ones place will be the remainder. The other digits will be the quotient.

$237 \div 10$ gives $Q = 23$, $R = 7$

Similarly, $180 \div 10$ $Q = 18$, $R = 0$

$314 \div 10$ $Q = 31$, $R = 4$

It is also simple to divide by 100.

There are two zeros in 100. So, on dividing by 100, the digits at the tens and ones place form the remainder. The rest of the digits are the quotient.

$769 \div 100$ gives $Q = 7$, $R = 69$

Similarly,

$162 \div 100$ $Q = 1$, $R = 62$

$482 \div 100$ $Q = 4$, $R = 82$

Understanding better
1. What is the quotient when you divide 268 by 10?
2. What is the quotient when you divide 192 by 100?
3. What is the remainder when you divide 2679 by 100?

87


Teacher: If $237 \div 10$ gives quotient 23 and remainder 7, what will be the quotient and remainder when dividing 314 by 10?

Teacher: Yes, quotient is 31, remainder is 4.

Teacher: Now, what about dividing 769 by 100?

Teacher: Yes, the quotient is 7 and the remainder is 69.

Teacher: Great thinking. This method helps us divide large numbers quickly.

 You may show the **Quick Maths** given on digital platform.

MUST DO

5 MIN.

Understanding better

Understanding better

1. What is the quotient when you divide 268 by 10?
2. What is the quotient when you divide 192 by 100?
3. What is the remainder when you divide 2679 by 100?

87

Teacher: Now, look at the 'Understanding better' section in your book. Let us answer these questions together.

Teacher: What is the quotient when you divide 268 by 10?

Teacher: Yes, the quotient is 26 because the ones place digit, 8, becomes the remainder.

(Guide students to solve the sums in similar manner.)

MUST DO

10 MIN.

Word Problems

WORD PROBLEMS

Example 14: A factory produces 208 packets of pencils in 8 days. How many packets of pencils were produced in a day?

Total number of pencil packets = 208

Number of days = 8 days

Number of packets of pencils produced in a day = $208 \div 8 = 26$

The factory produced 26 packets of pencils in a day.

$$\begin{array}{r} 26 \\ 8 \overline{) 208} \\ \underline{- 16} \\ 48 \\ \underline{- 48} \\ 0 \end{array}$$

Example 15: There are 1045 books in a library. They are arranged equally on 5 shelves. How many books are there on each shelf?

Total number of books = 1045

Number of shelves = 5

No. of books on each shelf = $1045 \div 5 = 209$

There are 209 books on each shelf.

$$\begin{array}{r} 209 \\ 5 \overline{) 1045} \\ \underline{- 10} \\ 45 \\ \underline{- 45} \\ 0 \end{array}$$

Teacher: Now, let us apply division to real-life situations.

Teacher: Look at example 14. A factory produces 208 packets in 8 days. How many per day?

Teacher: Yes, we divide $208 \div 8 = 26$. So, 26 packets are produced each day.

Teacher: Now, example 15. There are 1045 books on 5 shelves. How many books per shelf?

Teacher: Yes, $1045 \div 5 = 209$ books

per shelf.

Teacher: Now, let us solve similar problems together.

MUST DO

10 MIN.

13 Solve the following word problems, in your notebook.

- a. Maria pastes 8 photos on one page of her photo album. On how many pages can she paste 96 photos?
- b. Mohit sows 54 seeds equally in 3 rows. How many seeds did he sow in each row?
- c. A total of ₹567 is collected by 7 children to buy books for the library. How much money did each child collect if all of them collected the same amount?


Teacher: Open your books to Exercise 13 and solve the first four questions in your notebooks.

Teacher: Remember to check your answers using the relation $\text{quotient} \times \text{divisor} + \text{remainder} = \text{dividend}$.


Teacher: Once done, compare your answers with a partner.

Differentiated Activities

110 km/hr

 A fruit seller has 72 oranges and wants to pack them into 9 baskets equally. How many oranges will be in each basket?

80 km/hr

 A teacher has 60 worksheets to distribute equally among 10 students. How many worksheets will each student get?

40 km/hr

 There are 40 pencils in 4 boxes. How many pencils are in each box?

Home Task

Create a word problem using division and solve it. Check your answer using the $\text{quotient} \times \text{divisor} + \text{remainder} = \text{dividend}$ relation.

Period 10

Teacher: Good morning students.
How are you today?

Teacher: Before we begin, let us recall what we learnt in the last class.

Teacher: We discussed the short method of division and solved real-life word problems. What happens when we divide a number by 10?

Teacher: Yes, the last digit becomes the remainder, and the other digits form the quotient.

Teacher: What about division by 100?

Teacher: Correct, the last two digits become the remainder, and the rest of the number is the quotient.

Teacher: Let us do a quick warm-up before we move ahead. Answer these questions without looking at your books.

1. What is the quotient when you divide 864 by 10?
2. What is the remainder when you divide 543 by 100?
3. If quotient = 12, divisor = 5 and remainder = 3, what is the dividend?

Teacher: Well done, everyone. Now, open your books to page 88 and let us continue learning

SHOULD DO

5 MIN.



Connecting better

MUST DO

5 MIN.



Connecting better

After watching the show, students discussed about a few famous explorers. "Ferdinand Magellan sailed around the world between 1519 to 1521," says Sam. Maria says, "It is quite a long time. Almost 2-3 years." Jas replies, "They must have spent three-fourth of the day sailing around." Ryan replies, "Hmmm... almost 18 hours."

88

Teacher: Now, look at the 'Connecting better' section in your book.

Teacher: It tells us about Ferdinand Magellan's journey around the world. His crew spent almost three-fourths of the day sailing. Can anyone estimate how many hours that would be?

Teacher: Yes, three-fourths of 24 hours is 18 hours. That is a long time.

Teacher: Division helps us understand time, distances and real-life calculations.

MUST DO

10 MIN.



Recalling better

Recalling better

In this chapter, I have learnt

- how division works.
- division as repeated subtraction.
- to divide using the number line.
- the relation between multiplication and division.
- the properties of division.
- the long division method and the short division method.
- to divide 2-, 3- and 4-digit numbers.
- to divide 3- and 4-digit numbers by 10 and 100.

88

Teacher: Now, look at the 'Recalling better' section in your book.

Teacher: Let us summarise everything we have learnt about division. Answer these questions based on what we have studied so far.

Teacher: What does division mean?

Teacher: Yes, division is splitting a number into equal parts.

Teacher: How is division related to multiplication?

Teacher: Wonderful, division is the reverse of multiplication. If $5 \times 4 = 20$, then $20 \div 5 = 4$.

Teacher: How does repeated subtraction help in division?

Teacher: Great, repeated subtraction means taking away equal parts until we reach zero.

Teacher: What are the parts of a division equation?

Teacher: Correct, the dividend is the number being divided, the divisor is the number we divide by and the quotient is the answer.

Teacher: What happens when we divide a number by 1?

Teacher: Excellent, the quotient is always the same as the dividend.

Teacher: What happens when we divide a number by itself?

Teacher: Yes, the quotient is always 1.

You may show the **Slideshow** given on digital platform.

MUST DO

10 MIN.



Decoding better

Decoding better

Aim: To understand division by grouping

You will need: a cardboard, paper, sketch pen, scissors, buttons, bangles

Preparation: Make two groups of children. Call them X and Y.

STEP 1: Take a cardboard and paste a white paper on it.

STEP 2: Place bangles (say 5) in a row on the cardboard.

STEP 3: To divide a number, say 22 by 4 take 22 buttons and put 4 buttons (divisor) inside each bangle.

STEP 4: Place the remaining buttons in any 4 of the bangles.

STEP 5: The number of bangles filled with 4 buttons is the quotient and the number of buttons left out is the remainder. So in $22 \div 4$, quotient is 5 and remainder is 2.

88

Teacher: Now, look at the 'Decoding better' section in your book.

Teacher: This activity helps us understand division using objects. What materials do we need for this activity?

(Guide the students to complete the activity.)

MUST DO

10 MIN.



Solving better

Solving better

1 Fill in the blanks.

a. $\frac{\quad}{\quad} \div 48 = 1$ b. $70 + \frac{\quad}{\quad} = 7$

c. $77 + 11 = \frac{\quad}{\quad}$ d. $18 \div \frac{\quad}{\quad} = 2$

e. If $36 \div 3 = 12$, then $36 \div 12 = \frac{\quad}{\quad}$ f. $\frac{\quad}{\quad} + 100 = 14$

g. $\frac{\quad}{\quad} \div 1 = 56$ h. $\frac{\quad}{\quad} \div 17 = 5$

i. Division facts for $16 \times 6 = 96$ are, $\frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$ and $\frac{\quad}{\quad} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$

2 Compare using >, < or =.

a. $12 \div 1 \frac{\quad}{\quad} 18 \div 18$ b. $48 \div 8 \frac{\quad}{\quad} 72 \div 9$

c. $0 \div 1247 \frac{\quad}{\quad} 32 \div 1$ d. $63 \div 9 \frac{\quad}{\quad} 11 \times 5$

e. $2000 \div 100 \frac{\quad}{\quad} 350 \div 10$ f. $52 \div 4 \frac{\quad}{\quad} 136 \div 8$

3 Circle the correct answer.

a. Which of the following has only one division fact?

i. $8 \times 7 = 56$ ii. $12 \times 11 = 132$ iii. $15 \times 15 = 225$ iv. $12 \times 7 = 84$

b. The divisor in the division fact $244 \div 4 = 61$ is

i. 244 ii. 4 iii. 61 iv. 1

88-89

Teacher: Now, open your books to 'Solving better' section.

Teacher: Let us complete these division equations by finding the missing numbers. a. $\frac{\quad}{\quad} \div 48 = 1$

Teacher: If a number divided by 48 gives 1, what should the dividend be?

Teacher: Yes, the number is 48, because $48 \div 48 = 1$.
(Guide the students to complete questions.)

Teacher: Now, let us compare these division statements using greater than ($>$), less than ($<$) or equal to ($=$). a. $12 \div 1$ _____ $18 \div 18$

Teacher: What is $12 \div 1$?

Teacher: Yes, it is 12. Now, what is $18 \div 18$?

Teacher: It is 1. So, $12 > 1$.

(Guide the students to complete questions.)

Teacher: Now, let us choose the correct answers for these questions.

Teacher: a. Which of the following has only one division fact?

Teacher: A number that has only one division fact means it is a square number (a number multiplied by itself).

Teacher: Great work, everyone. You have understood these division concepts really well. Now, let us move on to discuss our project.

Teacher: You have to explore your neighbourhood and find three things that can be divided into equal groups. What are some examples?

Teacher: Yes, rows of chairs, books on shelves and packs of fruits.

Teacher: Once you identify the groups, create a word problem based on them.

Teacher: For example, if there are 24 apples arranged in 6 rows, how many apples are in each row?

Teacher: Yes, we divide $24 \div 6 = 4$ apples per row.

Teacher: Think creatively and bring your ideas in the end of the chapter.

Differentiated Activities

110 km/hr



A farmer has 96 mangoes and places them equally in 8 baskets. How many mangoes per basket?

80 km/hr



There are 90 chocolates to be shared among 10 children. How many chocolates do you have per child?

40 km/hr



If 30 pencils are divided equally among 3 students, how many pencils does each student get?

Home Task

Explore your neighbourhood and find three interesting things that you can divide into equal groups. Then, use your imagination to create fun word problems about them in your notebook.

Period 11

Teacher: Good morning students.
How are you?

SHOULD DO

5 MIN.

Teacher: Let us begin with a quick warm-up based on what we learnt in the last class. Answer these questions as fast as you can.

1. What happens to the remainder when the divisor is larger than the dividend? (The remainder is the dividend itself.)
2. If a number is divided by 1, what is the quotient? (The number itself.)
3. What is the quotient when a number is divided by itself? (1)
4. Can the remainder ever be greater than the divisor? (No.)
5. What happens if we divide zero by any number? (The quotient is always zero.)

Teacher: Wonderful. You are getting better at division every day. Let us now move on to today's exercises.

MUST DO

5 MIN.

Learning better

Learning better CBA

A Tick (✓) the correct answer.

1. Division is a process of repeated _____.
a. addition ☐ b. subtraction ☐
c. multiplication ☐ d. counting ☐
2. How many 5s are there in 120?
a. 23 ☐ b. 24 ☐ c. 22 ☐ d. 26 ☐
3. $0 \div 20 =$ _____.
a. 0 ☐ b. 20 ☐ c. 1 ☐ d. 10 ☐
4. $88 \div 8 = 11$. So, its multiplication fact is _____.
a. $8 \times 11 = 88$ ☐ b. $88 \times 1 = 88$ ☐
c. $1 \times 11 = 11$ ☐ d. $0 \times 88 = 0$ ☐
5. If dividend = 42, quotient = 6, then divisor is _____.
a. 6 ☐ b. 7 ☐ c. 8 ☐ d. 5 ☐

89

Teacher: Open your books to page 89 and look at Exercise A. We will solve the first question together.

- Division is a process of repeated _____. The correct answer is multiplication.
- Now, complete the remaining questions on your own.

MUST DO

5 MIN.

Teacher: Excellent. Now, let us move on to the next exercise.

B Fill in the boxes.

1. Quotient \times _____ + Remainder = Dividend
2. The division fact for $16 \div 7 = 112$ is _____ or _____.
3. The division fact for $8 \times 4 = 32$ is _____ or _____.
4. In the division fact $64 \div 8 = 8$, the quotient is _____.
5. In the division fact $120 \div 10 = 12$, the divisor is _____.

89-90

Teacher: Work on these questions individually first and then come together to discuss your answers with your peers. If anyone is confused, ask your partner to explain the steps. Peer learning will help everyone understand the process better.

MUST DO

15 MIN.



G Divide the following with regrouping. Write the answers in your notebook.

- | | | | |
|------------------|-------------------|-------------------|-------------------|
| 1. $82 \div 3$ | 2. $79 \div 5$ | 3. $84 \div 7$ | 4. $98 \div 9$ |
| 5. $281 \div 2$ | 6. $417 \div 6$ | 7. $492 \div 5$ | 8. $843 \div 8$ |
| 9. $1170 \div 3$ | 10. $3971 \div 7$ | 11. $3467 \div 6$ | 12. $6842 \div 9$ |

91

Teacher: Now, we will solve the first 8 questions from Exercise G in the same way. Remember, we are solving with regrouping, so pay close attention to the steps:

Teacher: Just like before, solve the problems individually and then discuss the steps with your group. If you encounter any difficulties, help each other understand the steps and resolve any confusion. Discussing the problem together will make sure everyone understands how to solve division problems with regrouping.

MUST DO

10 MIN.



H Solve the following word problems, in your notebook.

- Granny wants to divide 35 mangoes equally among 7 children. How many mangoes will each child get?
- Anna and her mother make necklaces. They have 576 beads. They want to make necklaces of 8 beads each. How many necklaces can they make?
- Kevin has 306 stickers in his stationery shop. He wants to give them equally to 9 children. How many stickers will each child get?
- A factory manufactures 1968 packets of straws. If there are 6 different colours of straws and an equal number of packets of each kind, how many packets are there of each colour?

91

Teacher: Now, we will solve the word problems in Exercise H. Each group will work together to solve the following problems:

Teacher: Work together in your groups to understand the word problems. Discuss how to approach each problem. Once you have worked out the solutions, verify your answers with the group and make sure everyone understands the logic behind the solution.

(Scaffold the students to understand the question and solve it.)

Teacher: Great work today. You all worked hard in your groups and solved the problems. Give yourselves a round of applause for your effort. Keep practising and I will see you in the next class.

Differentiated Activities

Identify the missing number in each equation. Once solved, verify with a partner. Rewrite the correct answers into multiplication form.

110 km/hr



$? \div 24 = 13$, $576 \div ? = 24$, $864 \div 36 = ?$

80 km/hr



$240 \div ? = 15$, $360 \div 18 = ?$, $? \div 12 = 20$

40 km/hr



$? \div 4 = 9$, $60 \div ? = 10$, $90 \div 9 = ?$

Home Task

Solve questions 9 to 12 of Exercises F and G given on page 91 in the Main Coursebook. Write the answers neatly in the notebook.

Please bring fruits like oranges, bananas and grapes, along with a toothpick and small pieces of almonds or raisins for the 'Solar System Fruit Platter' activity. You will use these materials to create your own solar system.

Period 13

Teacher: Good morning students.

How are you?

Teacher: Let us start with a quick warm-up activity based on our previous lesson. I will ask a few questions related to division and you will answer. Ready?

- If I divide 10 by 2, what is the answer?
- What is 16 divided by 4?
- If I have 12 cookies and divide them into 3 equal parts, how many cookies are in each part?

Teacher: Great work everyone. Let us move on to today's lesson.

Creating better

Creating better

Solar System Fruit Platter

- Take different fruits, such as oranges, bananas, toothpick, grapes, etc.
- With the help of an adult, cut the fruits into circular slices.
- Begin by placing an orange slice in the centre of the plate to represent the Sun.
- Arrange the other fruit slices around the Sun in the correct order to show the planets.
- Use a toothpick to represent Saturn's rings.
- Use small pieces of almonds or raisins to represent stars around the solar system.
- Once your fruit platter is arranged, take a moment to appreciate your solar system creation.
- Your solar system fruit platter is ready. Enjoy eating healthy and delicious fruits.

91

Teacher: Today, we are going to work on a fun activity related to division. Please open page 91 and look at 'Creating better' activity.

(Guide students to complete the activity.)

Teacher: Excellent teamwork. Let us now move on to the next activity, 'Thinking better.'

You may show the **Quiz** given on digital platform.



MUST DO

5 MIN.



Thinking better

Thinking better

Think and write the answer in your notebook.

- Aditya is going to an orphanage to distribute fruits on his birthday. If there are 48 children at the orphanage, how many dozens of bananas should he buy so that each child gets 2 bananas?
- Find the value of each fruit in the sums below.

92

Teacher: Here is a more challenging task. Aditya is going to an orphanage to distribute fruits for his birthday. If there are 48 children at the orphanage, how many dozens of bananas should he buy so that each child gets 2 bananas?

Teacher: Take a moment to work this out in your notebooks and share your solutions with your partner.

Teacher: Well done. Now, let us move to the 'Choosing better' section.

MUST DO

5 MIN.



Choosing better

Choosing better

LSV

Sam's father switches off the engine of his vehicle while waiting at the traffic signal. This saves fuel and is good for the environment. How can you contribute to the environment?

- I can contribute to the environment by planting trees and taking care of them.
- I can contribute to the environment by leaving the water tap running while brushing teeth.

92

Teacher: Sam's father switches off the engine of his vehicle while waiting at the traffic signal to save fuel and protect the environment. How can you contribute to protecting the environment?

Teacher: Let us have a guided discussion. What are some other ways we can reduce our impact on the environment?

Teacher: Great ideas. It is important to reflect on how our small actions can make a big difference. Let us now move to the next section, 'Revising better.'

You may show the **Animated Activities** given on digital platform.

MUST DO

5 MIN.



Revising better

Revising better

DBL

In this chapter, you have learnt to divide 2-digit numbers. Using this concept, frame five word problems and solve them in your Little Book.

92

Teacher: Now, let us look at the 'Revising better' task. You need to frame five-word problems using division.

Teacher: What is a word problem? Can anyone give an example of a word problem they have solved before?

Teacher: Yes, a word problem describes a real-life situation where we need to use math to find the solution.

Teacher: Now, you will create your own word problems. Start by thinking about division. What situations in daily life can involve dividing things?

Teacher: For example, if you have 24 pencils and want to share them equally with 4 friends, how many pencils will each friend get?

Teacher: You can use similar examples, such as dividing money, food or even organising items.

Teacher: Once you have created your word problems, solve them in your Little Book.

Teacher: Remember, each word problem must involve dividing two-digit numbers.

Teacher: After solving, check if your answers make sense.

Does the number of groups and the division result fit the situation in the problem?

Teacher: This will be your homework. I will give you time to work on it, but make sure to bring any questions back to class tomorrow.

Teacher: Now that we have reviewed, let us move on to the next section, 'Pledging better.'

MUST DO

5 MIN.



Pledging better

Pledging better

SDGs

In my own little way, I pledge to read books about space and our solar system.

SDG 4: QUALITY EDUCATION

92

Teacher: Today, we will make a pledge to improve ourselves.

Teacher: The pledge is about reading books. Who can tell me why reading is important?

Teacher: Yes, reading helps us learn more. It opens up new worlds.

Teacher: Now, think about space. Why do you think space is important to learn about?

Teacher: Correct, space helps us understand the universe and our place in it.

Teacher: I pledge to read books about space and our solar system.

Teacher: Can anyone share what they might pledge to do to learn better?

Teacher: Yes, some of you might pledge to read more books or help your friends study.

Teacher: Now, please write your own pledge in your notebook.

Teacher: Your pledge could be anything that helps you grow in your learning journey.

Teacher: Think about it carefully and write it down.

Teacher: Well done, everyone. Keep practising and I look forward to seeing your progress in the next class.

Differentiated Activities

110 km/hr



Work on dividing a set of 100 apples into 5 equal groups. How many apples will be in each group? Write out the division process and discuss it with your partner.

80 km/hr



If 45 students share 9 watermelon slices equally, how many slices will each student get? Write your answer clearly in your notebooks and explain your process to your partner.

40 km/hr



Divide 16 pencils among 4 students. How many pencils does each student receive? Discuss your approach with your partner.

Home Task

In this chapter, you have learnt to divide 2-digit numbers. Using this concept, frame five-word problems and solve them in your Little Book.

Bring your division project in the next class. Be ready to present it in the class.

Period 14

Teacher: Let us play a quick game called 'Division Detective.' I will give you clues, and you have to figure out the division problem. Are you ready?

SHOULD DO

5 MIN.

☐

Teacher: I am thinking of a number. If I divide it by 5, the result is 4. What is the number?

Teacher: Yes, the number is 20. Great work.

Teacher: Here is another one. If I divide 36 by a number, the answer is 6. What is the number?

Teacher: Correct. It is 6.

Teacher: Now, if you have 48 apples and you want to share them equally among 8 baskets, how many apples will each basket get?

Teacher: Well done. Each basket gets 6 apples.

Teacher: Fantastic. You are all Division Detectives. Let us now dive into our lesson.

MUST DO

15 MIN.

☐

Worksheet 1

Theme 5: What Is a Solar System?

7. Division

A. Fill in the blanks.

- Division by 1 is _____.
- Division is same as repeated _____.
- Dividing _____ by any number gives the quotient 0.
- When we divide a number by _____, the quotient is 1.
- When we divide a number by 1, the quotient is the _____.

B. Write the division fact for the following sentences.

- 8 roses are equally tied into 2 bunches _____
- 20 sticks are equally divided into 4 bundles _____
- 16 toffees are equally divided into 8 packets _____
- 15 mangoes are equally packed into 5 baskets _____
- 12 carrots are equally divided among 4 rabbits _____

C. Write the dividend, divisor and quotient for each division fact.

	Division fact	Dividend	Divisor	Quotient
1.	$6 \div 2 = 3$			
2.	$15 \div 3 = 5$			
3.	$42 \div 7 = 6$			
4.	$54 \div 6 = 9$			
5.	$30 \div 5 = 6$			

Worksheet 1

Teacher's Signature: _____

28

Remarks: _____

Teacher: Let us open page 28 in our books and work on the worksheet.

Teacher: In Exercise A, we will fill in the blanks based on our previous learning.

Teacher: In Exercise B, let us write the division facts for the sentences given.

Teacher: In Exercise C, we will work together and fill in the dividend, divisor and quotient for each division fact.

Teacher: Take your time and let me know if you need help with anything.

COULD DO

10 MIN.

☐

Book of Project Ideas

Chapter 7: Division

Explore your neighbourhood and find three interesting things that you can divide into equal groups. Then, use your imagination to create fun word problems about them in your notebook.

Theme 5: What Is a Solar System?

PRO 21 CS

9

Teacher: Let us move on to discuss your projects.

Teacher: The project was given in previous classes and now it is time for some of you to present it.

Teacher: Please read your project aloud and I will guide you through some questions to reflect on your findings.

Teacher: Do not worry, take your time to present.

COULD DO

10 MIN.

☐

Book of Holistic Teaching

Chapter 7: Division

A English

Underline all the a or an words.

- Division splits a number into parts.
- It shows how many times a number fits.
- Division helps to share an item equally.
- It is the opposite of multiplication.
- We use a division to solve sharing problems.

B Science

In yoga, there is a pose where you sit with your legs crossed and your hands on your knees. If you and 3 friends, each do this pose 4 times, how many times in total do you all do the pose? What is one way Ayurveda helps people stay healthy?

C Social Studies

A person and his crew set sail on their historic journey in 1492. They embarked on an adventure across the vast Atlantic Ocean, braving storms, encountering unknown dangers, and navigating the expanse of the open sea. After 70 days at sea, they ultimately reached their destination. Can you guess which famous explorer these lines refer to?

If there were 70 days of sailing and the crew divided the journey into 10 equal parts. How many days did each part of the journey take? Can you guess the name of the explorer?

Theme 5: What Is a Solar System?

FLN HoLL MDA

16-17

(Refer to the Book of Holistic Teaching, page 16, 17 under the title 'Division.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.)

Differentiated Activities

110 km/hr



You have 120 apples. If you divide them equally among 8 baskets, how many apples will be in each basket? What is the remainder?

80 km/hr



If you divide 96 by 8, what is the quotient and the remainder?

40 km/hr



Divide 30 by 5. What is the quotient?

Home Task

In a magical orchard, there are 256 apples hanging from the trees. A fairy decides to divide the apples equally among 8 baskets. How many apples will be placed in each basket? Will there be any apples left over for the fairy to eat?

Period 15

Teacher: Good morning students.

How are you today? Let us begin with a fun challenge. Today we will play a division game.

Teacher: I will give you a number and you have to quickly tell me how many times that number divides another number. Are you ready? Here we go.

Teacher: How many 4's are there in 20?

Teacher: That is correct, 5. Well done.

Teacher: What is 16 divided by 2?

Teacher: Excellent, it is 8. Keep it up.

Teacher: Now, what is 24 divided by 3?

Teacher: Correct, it is 8.

Teacher: And finally, how many 5's are there in 30?

Teacher: Yes, that is 6.

Teacher: Great work, everyone. Let us get started with today's worksheet.

Worksheet 2

Teacher: Let us move to solve worksheets. Everybody please open worksheet 2.

Teacher: For Exercise A, there are statements about division. You need to mark them as True or False. Pay attention to the meaning of division to check if the statement makes sense.

Worksheet 2

A. Write true or false.

- Division by 1 is meaningless. _____
- Dividing any number by 1 gives the quotient 1. _____
- When we divide a number by itself, the quotient is 0. _____
- Division means sharing equally or making equal groups. _____
- When we divide a number by 1, the quotient is the number itself. _____

B. Fill in the blanks.

- $6 \div 1 =$ _____
- $4 \div 4 =$ _____
- $0 \div 3 =$ _____
- $2 \div 2 =$ _____
- $0 \div 2 =$ _____

C. Write a multiplication fact for each division fact.

- $54 \div 2 = 27$ _____ \times _____ = _____
- $64 \div 8 = 8$ _____ \times _____ = _____
- $27 \div 3 = 9$ _____ \times _____ = _____
- $44 \div 4 = 11$ _____ \times _____ = _____
- $65 \div 5 = 13$ _____ \times _____ = _____

Teacher's Signature: _____

29

Remarks: _____

Teacher: In Exercise B, you will fill in the blanks. Think about the division facts carefully and fill in the missing answers.

Teacher: Finally, in Exercise C, you need to write the multiplication fact for each division fact. Remember, division and multiplication are related. Use what you know about both operations to solve this.

Teacher: Please take your time and let me know if you have any questions.

You may generate additional practice worksheets using the **Test Generator** given on digital platform.

MUST DO

15 MIN.

Worksheet 3

Worksheet 3

A. Fill in the blanks.

- $17 \div 0 =$ _____
- $15 \div 1 =$ _____
- $21 \div 21 =$ _____
- $0 \div 14 =$ _____
- $17 \div 1 =$ _____

B. Tick (✓) the correct answer.

- How many times should 5 be subtracted from 25 to get 0?
a. 5 ☐ b. 6 ☐ c. 4 ☐ d. 3 ☐
- What is the quotient if the dividend is 35 and the divisor is 7?
a. 10 ☐ b. 5 ☐ c. 4 ☐ d. 9 ☐
- Which of these have only one division fact?
a. $2 \times 7 = 14$ ☐ b. $3 \times 4 = 12$ ☐
c. $6 \times 6 = 36$ ☐ d. $8 \times 5 = 40$ ☐
- What is the divisor in the division fact $96 \div 16 = 6$?
a. 96 ☐ b. 16 ☐ c. 6 ☐ d. 0 ☐
- What is the quotient in the division fact $72 \div 12 = 6$?
a. 72 ☐ b. 12 ☐ c. 6 ☐ d. 0 ☐

C. Divide and match the following with their quotient.

- $75 \div 5$ • a. 20
- $80 \div 4$ • b. 7
- $45 \div 9$ • c. 29
- $56 \div 8$ • d. 15
- $87 \div 3$ • e. 5

Teacher's Signature: _____

30

Remarks: _____

Teacher: Please open the worksheet given on page 30. We will be working on this worksheet today.

Teacher: In Exercise A, you will fill in the blanks. Look closely at the division problems and fill in the correct answers.

Teacher: For Exercise B, you will tick the correct answer. Carefully read the questions and select the correct option based on your understanding of division.

Teacher: In Exercise C, you will divide and match the numbers with their quotient. Pay attention to the division facts and match them correctly.

Teacher: Complete the worksheet and let me know if you have any questions.

SHOULD DO

5 MIN.



Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column we will write what we have learnt in this chapter.

Teacher: Think about the topics, have we learnt and write them in the 'L' column of the chart.

(Wait for students to fill in the chart.)

Teacher: Let us all give a huge round of applause to everyone for their hard work and creativity. Great work, everyone. See you in the next class. Have a wonderful day ahead.

Differentiated Activities

110 km/hr



A farmer has 150 apples, and he wants to divide them equally into 5 baskets. How many apples will go into each basket?

80 km/hr



A toy store has 96 action figures. If they want to arrange them in 12 shelves with the same number of toys on each shelf, how many action figures will be placed on each shelf?

40 km/hr



A bag has 36 marbles. You want to divide them equally into 6 small bags. How many marbles will be in each bag?

Home Task

A space explorer is preparing for a journey to Mars. They have 864 liters of rocket fuel and need to divide the fuel equally into 6 fuel tanks. How many liters of fuel will go into each tank? After filling all the tanks, how much fuel will remain?

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	<ul style="list-style-type: none">demonstrate division concepts using hands-on activities like arranging objects into equal groups and drawing number lines.
Socio-Emotional and Ethical Development	<ul style="list-style-type: none">collaborate with peers to solve division problems and explain their reasoning in group discussions.
Cognitive Development	<ul style="list-style-type: none">accurately solve division problems using repeated subtraction, number lines and long division.
Language and Literacy Development	<ul style="list-style-type: none">correctly define and use division-related terms such as dividend, divisor, quotient and remainder in verbal and written explanations.
Aesthetic and Cultural Development	<ul style="list-style-type: none">identify and apply division in real-world scenarios, such as sharing resources.
Positive Learning Habits	<ul style="list-style-type: none">complete division exercises independently, showing perseverance and self-correction when solving challenging problems.

Starry Knights

Mention any incident/activity that you and your learners enjoyed while learning division.

Give yourself a STAR.



Answers

Theme 1: What Is a Solar System?

Lesson-7: Division

Main Coursebook

Kingesthetic

Accept all the relevant responses.

Auditory

1. 9
2. 6

Pictorial

- 2 groups of 6 each.
- 2 groups of 9 each.

Interacting better

$$60 \div 5 = 12$$

1. a. 6 b. 7
 c. 9 d. 8
2. a. 9 b. 7 c. 5
 d. 6 e. 6
3. a. 6 b. 5
 c. 4 d. 5

4. b. $\frac{40}{5} = 8, \frac{40}{8} = 5$ c. $\frac{36}{9} = 4, \frac{36}{4} = 9$

d. $\frac{84}{12} = 7, \frac{84}{7} = 12$

5. a. 6 b. 6
c. 4 d. 8
6. a. 9 b. 6
c. 5 d. 3

Understanding better (page no - 83)

1. 25 2. 1 3. 0

8. Groups = 2
Apples left over = 2
 $Q = 2$
 $R = 2$

9. a. $17 \div 2$
Q = 8, R = 1

- b. $66 \div 7$
Q = 9, R = 3

- c. $26 \div 4$
Q = 6, R = 2

- d. $68 \div 6$
Q = 11, R = 2

- e. $38 \div 3$
Q = 12, R = 2

- f. $47 \div 2$
Q = 23, R = 1

10. b. $4 \times 9 + 1 = 36 + 1 = 37$
c. $7 \times 8 + 4 = 56 + 4 = 60$

Understanding better (page no - 85)

1. No 2. No 3. Yes

11.
 - a. $36 \div 3 = 12$
 - b. $65 \div 2 = 32$ quotient 32, remainder 1
 - c. $70 \div 5 = 14$
 - d. $84 \div 3 = 28$
 - e. $242 \div 2 = 121$
 - f. $368 \div 3 = 122$ quotient 122, remainder 2
 - g. $483 \div 7 = 69$
 - h. $581 \div 9 = 64$ quotient 64, remainder 5
12.
 - a. Q = 1238, R = 2
 - b. Q = 953, R = 1
 - c. Q = 1423, R = 3
 - d. Q = 897, R = 9

Understanding better (page no - 87)

1. 26 2. 1 3. 79

13. a. 12 pages
b. 18 seeds per row
c. 81 per child

Solving better

- $48 \div 48 = 1$
- $70 \div 10 = 7$
- $77 \div 11 = 7$
- $18 \div 9 = 2$
- If $36 \div 3 = 12$, then $36 \div 12 = 3$
- $1400 \div 100 = 14$
- $56 \div 1 = 56$
- $85 \div 17 = 5$
- Division facts for $16 \times 6 = 96$ are, $96 \div 6 = 16$ and $96 \div 16 = 6$

2. a. = b. <
 c. < d. <
 e. < f. <

3. a. iii. $15 \times 15 = 225$
b. ii. 4

Learning better

- A. 1. b 2. b 3. a
4. a 5. b

- B. Quotient \times Divisor + Remainder = Dividend**
The division fact for $16 \times 7 = 112$ is $112 \div 7 = 16$
or $112 \div 16 = 7$.

- The division fact for $8 \times 4 = 32$ is $32 \div 4 = 8$ or $32 \div 8 = 4$.

- In the division fact $64 \div 8 = 8$, the quotient is 8.
In the division fact $120 \div 10 = 12$, the divisor is 10.

- C. 1. 4 2. 8
 3. 9 4. 8
- D. 1. 9 2. 8

E. 1. $88 \div 4$

$Q = 22, R = 0$

2. $242 \div 2$

$Q = 121, R = 0$

3. $78 \div 7$

$Q = 11, R = 1$

4. $93 \div 4$

$Q = 23, R = 1$

5. $749 \div 3$

$Q = 249, R = 2$

6. $753 \div 8$

$Q = 94, R = 1$

F. 1. $55 \div 5 = 11$

2. $69 \div 6 = 11$ remainder 3

3. $43 \div 4 = 10$ remainder 3

4. $78 \div 7 = 11$ remainder 1

5. $669 \div 3 = 223$

6. $840 \div 4 = 210$

7. $777 \div 7 = 111$

8. $800 \div 2 = 400$

9. $2486 \div 2 = 1243$

10. $4040 \div 4 = 1010$

11. $3996 \div 3 = 1332$

12. $5055 \div 5 = 1011$

G. 1. $82 \div 3 = 27$ remainder 1

2. $79 \div 5 = 15$ remainder 4

3. $84 \div 7 = 12$

4. $98 \div 9 = 10$ remainder 8

5. $281 \div 2 = 140$ remainder 1

6. $417 \div 6 = 69$ remainder 3

7. $492 \div 5 = 98$ remainder 2

8. $843 \div 8 = 105$ remainder 3

9. $1170 \div 3 = 390$

10. $3971 \div 7 = 567$ remainder 2

11. $3467 \div 6 = 578$ remainder 5

12. $6842 \div 9 = 760$ remainder 2

H. 1. 5 mangoes

2. 72 necklaces

3. 34 stickers

4. 328 packets

Thinking better

1. Think and write the answer in your notebook.

Aditya should buy 8 dozens of bananas.

Thinking better

1. 8 dozen

2.  = 40  = 30  = 10

2. Apple = 40, Strawberry = 30 and Grapes = 10

Choosing better

- I can contribute to the environment by planting trees and taking care of them.



Worksheets

Worksheet 1

A. 1. number itself

2. addition

3. 0

4. number itself

5. number itself

B. 1. $\frac{8}{2}$

2. $\frac{20}{4}$

3. $\frac{16}{8}$

4. $\frac{15}{5}$

5. $\frac{12}{4}$

Worksheet 2

A. 1. false

2. false

3. false

4. true

5. true

B. 1. 6

2. 1

3. 0

4. 1

5. 0

C. 1. 2, 27

2. 8, 8

3. 3, 9

4. 4, 11

5. 5, 13

Worksheet 3

A. 1. Undefined

2. 15

3. 1

4. 0

5. 17

B. 1. a.

2. b.

3. c.

4. b.

5. c.

C. 1. d

2. a.

3. e.

4. b.

5. c.

Book of Holistic Teaching

Developing better

A. Will discuss with designer

B. You all do the pose **16 times** in total. Ayurveda promotes health through **balance** and natural remedies.

C. The famous explorer referred to in these lines is **Christopher Columbus**. If the journey was divided into 10 equal parts, each part took **7 days** ($70 \text{ days} \div 10 \text{ parts}$).

Book of Project Ideas

Making better

Accept all relevant responses.