Lesson-5: Division

13 Periods (40 minutes each)

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

Animation, Animated Activities, Dictionary, eBook, Explainer video, HOTS, I Explain, Maths Lab, Mental Maths, Quiz, Slideshow, Infographics

Affirming better
I believe in myself.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand and apply division concepts in real-life situations.
- to identify and use the terms dividend, divisor, quotient and remainder.
- to solve division problems using long division and by dividing by 10, 100 and 1,000.
- to estimate quotients using rounding and estimation strategies.
- to develop problem-solving and critical thinking skills through group activities and word problems.

Methodology

Period 1

Teacher: Good morning students. How are you?

Teacher: Let us play a quick game. I will say a number, and you tell me how many equal groups we can make. Ready?

SHOULD DO
05 MIN.

Teacher: 12.

Teacher: Yes, we can make 3 groups of 4 or 4 groups of 3.

Teacher: 20.

Teacher: Correct, 4 groups of 5 or 5 groups of 4.

Teacher: Well done. Division is about making equal groups. Let us move forward.

(Give more questions in similar way.)

Teacher: Well done. Division helps us divide things equally. Before we move ahead, let us take a moment to say something positive about ourselves.

Affirming better

MUST DO
05 MIN.

Teacher: Today, we will focus on the thought – 'I believe in myself.'

Teacher: Why do you think believing in yourself is important?

Teacher: Yes, when we believe in ourselves, we feel confident and keep trying.

Teacher: Say it with me: 'I believe in myself.'

Teacher: Wonderful. Now that we are ready, let us explore 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.

SHOULD DO
10 MIN.

K	W	L

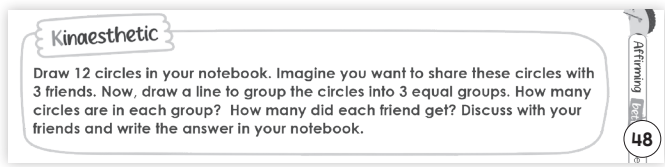
Teacher: Take a few minutes to think and write. If you have any questions, feel free to ask.

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

Kinaesthetic

MUST DO
10 MIN.

Teacher: Open your books to page 48.



Teacher: Let us read and understand the kinaesthetic activity.

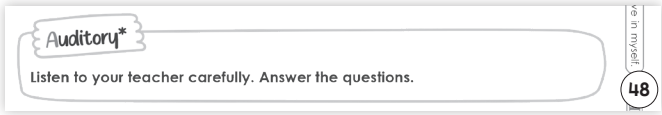
Students: Complete the task as instructed in the book.

Teacher: Excellent work, let us proceed to the auditory activity.

Auditory

MUST DO
05 MIN.

Teacher: Listen carefully as I read the questions aloud. Think and answer.



Teacher: One day, Lily and her 3 friends went on a picnic with 20 cookies. They wanted to share the cookies equally. So, Lily divided them into 4 groups. Each friend, including Lily, got 5 cookies, showing that 20 cookies divided amongst 4 friends equals 5 cookies each.

1. How many friends, including Lily, went on the picnic?
2. If Lily had 24 cookies instead of 20, how many cookies would each friend get?

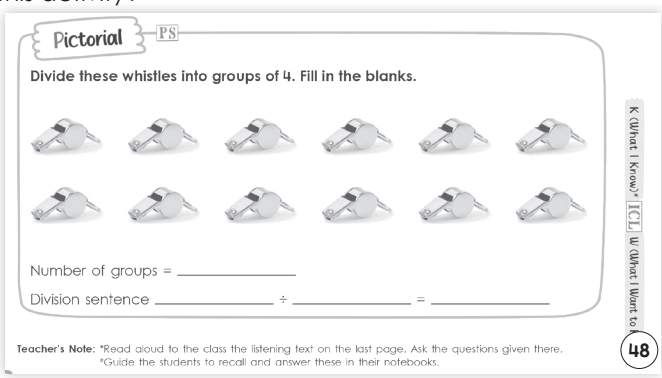
Teacher: Great effort, everyone, Now, let us explore the pictorial activity.

You may show the **eBook** given on the digital platform to show the activity on screen.

Pictorial

MUST DO
05 MIN.

Teacher: Look at the picture in your book. Who will explain what to do in this activity?



Teacher: Yes, count the total objects. Divide them into equal groups and write the division sentence for it?

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 practicing.

Differentiated Activities

110 km/hr

48 ÷ 6, 72 ÷ 8 and 90 ÷ 9.

80 km/hr

32 ÷ 4, 45 ÷ 5 and 54 ÷ 6

40 km/hr

20 ÷ 2, 15 ÷ 3 and 18 ÷ 3

Home Task

Draw 12 stars and divide them equally among 3 groups. Write the division sentence for it. Also, solve 20 ÷ 5 and 30 ÷ 6 using equal grouping in your notebook.

Period 2

SHOULD DO
05 MIN.

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

Teacher: Let us begin with a quick game called 'Find the Division Pairs'. I will say a number, and you have to tell me two different ways which can divide it equally.

Teacher: 24.

Teacher: Yes, 24 ÷ 6 = 4. Can someone give me another way?

Teacher: Great, 24 ÷ 8 = 3.

(Accept all relevant responses.)

Teacher: 36.

Teacher: Correct, 36 ÷ 9 = 4. Any other way?

Teacher: Yes, 36 ÷ 6 = 6.

(Accept all relevant responses.)

Teacher: 48.

Teacher: Good, 48 ÷ 8 = 6. Another one?

Teacher: Yes, 48 ÷ 12 = 4.

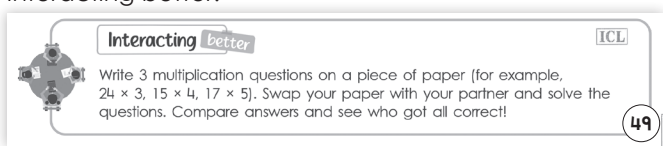
(Accept all relevant responses.)

Teacher: Well done. This shows that one number can have multiple division pairs. Now, let us use division in an interactive activity.

Interacting better

MUST DO
05 MIN.

Teacher: Open your books to page 49 and read the instructions in 'Interacting better.'



Teacher: Write 3 multiplication questions on a piece of paper and swap them with your partner.

Teacher: Now, here is the twist! After solving the multiplication, write its related division fact.

Teacher: For example, if your partner gives you 7 × 3 = 21, you will also write 21 ÷ 7 = 3 and 21 ÷ 3 = 7.

Teacher: What do you notice?

Teacher: Yes, multiplication and division are opposites or inverses of each other!

Teacher: This means if you know a multiplication fact, you can easily find its division fact.

Teacher: Great. Now, let us read a story to see how division is used in real life.

Teacher: Look at the picture story on page 49.

MUST DO
15 MIN.

Teacher: What do you see in the pictures?

Teacher: Yes, Maria and her friends are at the library, looking for different books.

Teacher: Let us quickly read the story.

Teacher: How did they divide themselves to search for books?

Teacher: Correct, they split into smaller groups to cover different sections.

Teacher: What if there were 9 students and 3 sections in the library? How many students would go to each section?

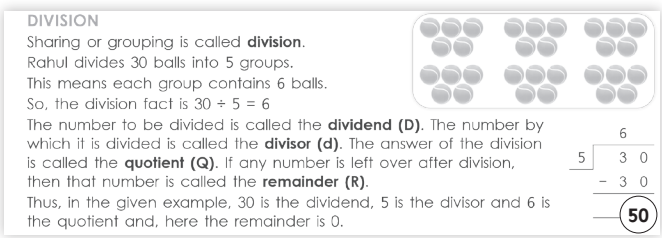
Teacher: Yes, 9 ÷ 3 = 3, so three students per section.

Teacher: Well done. Just like Maria and her friends divided their task, division helps us distribute things equally. Let us now learn division in detail.

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

MUST DO
10 MIN.

Division



You may show the **Dictionary** given on the digital platform to discuss the key terms of the chapter.

Teacher: Sharing or grouping is called division.

Teacher: Suppose Rahul has 30 balls and divides them into 5 equal groups.

Teacher: How many balls will be in each group?

Teacher: Yes, 6 balls in each group. So, 30 ÷ 5 = 6.

Teacher: Now, let us learn some important terms related to division.

- Dividend – The number being divided (30).
- Divisor – The number we divide by (5).
- Quotient – The answer after division (6).
- Remainder – The number left after division (0 in this case).

Teacher: Can anyone give me another example of division from daily life?

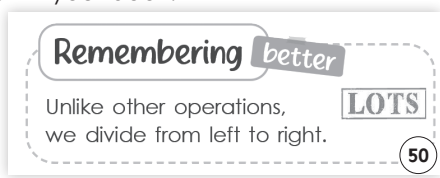
Teacher: Yes, if we have 12 chocolates and share them equally among 4 friends, each will get 12 ÷ 4 = 3 chocolates.

Teacher: Excellent. Now, let us remember a key point about division.

Remembering better

MUST DO
05 MIN.

Teacher: Look at the 'Remembering better' box in your book.



Teacher: Unlike other operations, we divide from left to right.

Teacher: Why do you think this is important?

Teacher: Yes, it helps in long division.

Teacher: Well done, everyone. You all did a great job today. Let us end with a big round of applause for your hard work. See you in the next class!

Differentiated Activities

Solve the following sums using repeated subtraction.

110 km/hr

96 ÷ 8, 81 ÷ 9 and 72 ÷ 6.

80 km/hr

64 ÷ 8, 55 ÷ 5 and 42 ÷ 7

40 km/hr

30 ÷ 3, 14 ÷ 2 and 18 ÷ 2

Home Task

Solve 54 ÷ 6 and 40 ÷ 5 using equal grouping. Draw and show how you divided the objects.

Period 3

SHOULD DO
05 MIN.

Teacher: Let us start with a quick activity called 'Find the Quotient'. I will say a division sentence, and you will quickly answer.

Teacher: 36 ÷ 6 = ?

Teacher: Yes, the answer is 6.

Teacher: 42 ÷ 7 = ?

Teacher: Correct, it is 6.

Teacher: 54 ÷ 9 = ?

Teacher: Yes, the answer is 6.

Teacher: 81 ÷ 9 = ?

Teacher: Good, the answer is 9.

Teacher: 72 ÷ 8 = ?

Teacher: Yes, the answer is 9.

Teacher: Well done. Division helps us split numbers into equal parts. Now, let us explore the properties of division.

Properties of division

MUST DO 10 MIN.

Teacher: When we divide any number by 1, the answer remains the same as the dividend.

Properties of division

In our previous classes, we studied the properties of division. Now, let us revise the concept together.

Division by 1

When any number is divided by 1, the quotient is same as the dividend.

27 ÷ 1 = 27   206 ÷ 1 = 206   9,658 ÷ 1 = 9,658

Division of a number by itself

When any number is divided by itself, the quotient is always 1.

12 ÷ 12 = 1   341 ÷ 341 = 1   4,257 ÷ 4,257 = 1

Division of 0 by any number

When 0 is divided by any number, the quotient is always 0.

0 ÷ 55 = 0   0 ÷ 310 = 0   0 ÷ 5,795 = 0

50

Teacher: Imagine you have 5 apples and you keep all of them in 1 basket. How many apples are in the basket?

Teacher: Yes, all 5 apples are still there. So, 5 ÷ 1 = 5.

Teacher: What if you had 20 pencils and placed them in 1 box?

Teacher: Yes, the answer is 20 ÷ 1 = 20.

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

Teacher: Suppose you and 3 friends order a pizza cut into 4 equal slices. If you divide the 4 slices among 4 people, how many slices does each person get?

Teacher: Yes, 4 ÷ 4 = 1, meaning each person gets 1 slice.

Teacher: What if a classroom has 10 chairs and 10 students? If each student gets one chair, how many chairs does each student receive?

Teacher: Correct, 10 ÷ 10 = 1.

Teacher: When 0 is divided by any number, the quotient is always 0.

Teacher: Imagine you have zero chocolates and you want to share them among 5 friends. How many chocolates does each friend get?

Teacher: Yes, 0 ÷ 5 = 0 because there is nothing to share.

Teacher: What if you had 0 rupees and wanted to divide them among 4 people?

Teacher: Yes, 0 ÷ 4 = 0.

Division of a 4-digit number by a 1-digit divisor

MUST DO 10 MIN.

Teacher: Look at the example in your book on page 50. We are dividing 1,598 by 5.

Division of a 4-digit number by a 1-digit divisor

Example 4: Divide 1,598 by 5.

STEP 1: Since 1 cannot be divided by 5, we will take the digit next to it. So, we will consider 15 as the dividend. Hence, Q = 3 and R = 0.

STEP 2: Bring down 9. Divide 9 by 5. So, Q = 1 and R = 4.

STEP 3: Bring down 8. Divide 48 by 5. So, Q = 9 and R = 3.

```
       3 1 9
    ┌────────
  5 │ 1 5 9 8
    − 1 5 ↓
      ─────
        0 9      STEP 1
      −   5 ↓
      ─────
          4 8    STEP 2
        − 4 5
        ─────
            3    STEP 3
```

Thus, dividend = 1,598, divisor = 5, quotient = 319 and remainder = 3

50

Teacher: First, can we divide 1 by 5?

Teacher: No, so we take 15 as the dividend.

Teacher: What is 15 ÷ 5?

Teacher: Yes, 3. Now, we bring down the next digit, which is 9.

Teacher: What is 9 ÷ 5?

Teacher: Correct, quotient is 1 and remainder is 3.Now, bring down 8.

Teacher: What is 48 ÷ 5?

Teacher: Yes, quotient is 9 and remainder 3.

Teacher: So, the quotient is 319 and the remainder is 3.

Teacher: Well done. Now, let us check our understanding.

Understanding better

MUST DO 05 MIN.

Teacher: Open your books to page 50. Let us answer these true or false questions in the 'Understanding better' section.

Understanding better

ICL

Say true or false.

1. A number divided by itself gives the quotient 1.
2. A number divided by 1 gives the quotient 1.

50

Teacher: A number divided by itself gives the quotient 1. True or false?

Teacher: Yes, it is true.

Teacher: A number divided by 1 gives the quotient 1. True or false?

Teacher: No, it is false. The quotient is the number itself.

Teacher: Great thinking. Now, let us learn a helpful way to approach division.

Processing better

Teacher: Open your books to page 50. Look at the 'Processing Better' section.

Processing better

CL

If the first digit from the left is less than the divisor, then take the digits from both the first and second places as the first dividend. Here, 1 is less than 5, so take 15 as the dividend.

50

Teacher: What happens when the first digit of the number is smaller than the divisor?

Teacher: Yes, we take the first two digits together as the dividend.

Teacher: In 1,598 ÷ 5, why do we take 15 as the dividend instead of 1?

Teacher: Correct, because 1 is smaller than 5.

Teacher: Excellent. Now, let us practise division with some exercises.

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

MUST DO 10 MIN.

Teacher: Open your books to page 51. Solve parts (a) to (e) in your notebook.

1 Find the quotients and remainders. Write the answers in your notebook.

a. 1,216 ÷ 2 b. 2,449 ÷ 5 c. 4,520 ÷ 7 d. 6,547 ÷ 9
e. 6,941 ÷ 8 f. 7,612 ÷ 6 g. 8,825 ÷ 3 h. 9,198 ÷ 4

51

Teacher: Remember the steps:

1. Check if the first digit is smaller than the divisor.
2. If yes, take the first two digits as the dividend.
3. Divide step by step, bringing down digits one at a time.

Teacher: I will walk around and check your work.

Teacher: Well done, everyone. You all did a great job today. Let us end with a big round of applause for your hard work. See you in the next period.

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

7,254 ÷ 6, 8,341 ÷ 7 and 9,612 ÷ 8.

80 km/hr

4,205 ÷ 5, 6,732 ÷ 6 and 3,984 ÷ 4.

40 km/hr

2,145 ÷ 5 and 3,624 ÷ 6

Home Task

Solve questions (f) to (h) of Exercise 1 given on page 51 in your Main Course Book. Write the answers neatly in your notebook.

Period 4

SHOULD DO 05 MIN.

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

Teacher: Let us begin with a quick activity called 'Complete the Property'. I will give you an incomplete division statement, and you will complete it using the correct property of division.

Teacher: 72 ÷ ___ = 72. Which number completes this equation?

Teacher: Yes, 1. This follows the property of division by 1.

Teacher: ___ ÷ 15 = 1. What number should go in the blank?

Teacher: Correct, 15. This follows the property of division of a number by itself.

Teacher: 0 ÷ ___ = 0. What can we place in the blank?

Teacher: Yes, any number except 0. This follows the property of division of 0 by a number.

Teacher: Now, what happens if we try to divide 30 by 0?

Teacher: Correct, division by 0 is not possible.

Teacher: Well done. Understanding these properties helps us divide correctly. Now, let us learn how to divide a 4-digit number by a 2-digit divisor.

Division of a 4 - digit number by a 2 - digit divisor

MUST DO 05 MIN.

Teacher: Open your books to page 51 and look at example 5.

Division of a 4-digit number by a 2-digit divisor

Division by a 2-digit divisor is similar to division by a 1-digit divisor. To divide accurately, it is advisable to write the multiplication table of the 2-digit divisor.

18 × 1	= 18
18 × 2	= 36
18 × 3	= 54
18 × 4	= 72
18 × 5	= 90
18 × 6	= 108
18 × 7	= 126
18 × 8	= 144
18 × 9	= 162
18 × 10	= 180

Example 5: Divide 5,685 by 18.

STEP 1: Since the digit at the thousands place is less than the divisor, take the next digit. So, we will consider 56 as the dividend.

STEP 2: Divide 56 by 18. From the table of 18, choose a number less than 56. So, 18 × 3 = 54.
In this case, 3 is the quotient and 2 is the remainder.

STEP 3: Now, bring down 8 from the tens place of the dividend. Divide 28 by 18. From the table of 18, choose a number less than 28. So, 18 × 1 = 18.
In this case, 1 is the quotient and 10 is the remainder.

STEP 4: Now, bring down 5 from the ones place of the dividend. Divide 105 by 18.
From the table of 18, choose a number less than 105. So, 18 × 5 = 90.
In this case, 5 is the quotient and 15 is the remainder.

```
        3 1 5
   18 ) 5 6 8 5
      - 5 4 ↓        STEP 1
          2 8
        - 1 8 ↓      STEP 2
          1 0 5
        -   9 0      STEP 3
            1 5
```

Thus, dividend = 5,685, divisor = 18, quotient = 315 and, remainder = 15

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(Discuss with reference to the explanation given in example 5.)

Teacher: Now, let us relate this to real life. Imagine you are distributing 5,685 stickers equally among 18 students. Each student will receive 315 stickers, but 15 stickers will be left over.

Teacher: What can we do with the remaining 15 stickers?

Teacher: Yes, we can distribute them later, keep them aside or divide them in a different way.

Teacher: This shows how division and remainders help in sharing things fairly in real-life situations. Now, let us recall an important rule about remainders.

Remembering better

MUST DO 05 MIN.

Teacher: Open your books to page 51 and look at the 'Remembering better' section.

Remembering better

The remainder is always less than the divisor. LOTS

51

Teacher: What is the rule about remainders?

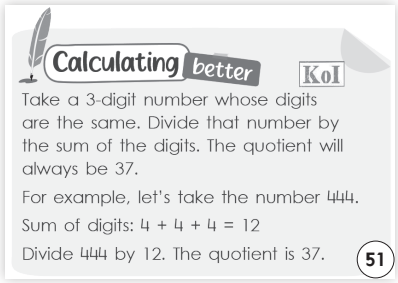
Teacher: Yes, the remainder is always less than the divisor.

Teacher: Why do you think this is important?

Teacher: Yes, if the remainder is equal to or greater than the divisor, it means we can divide again.

Calculating better

Teacher: Now, look at the 'Calculating Better' section. Who will read and explain it?



Teacher: It shows how dividing a number by the sum of its digits always gives the same quotient.

Teacher: Let us try with 555. Add the digits: 5 + 5 + 5 = 15.

Teacher: Now divide 555 ÷ 15.

Teacher: Yes, the quotient is 37.

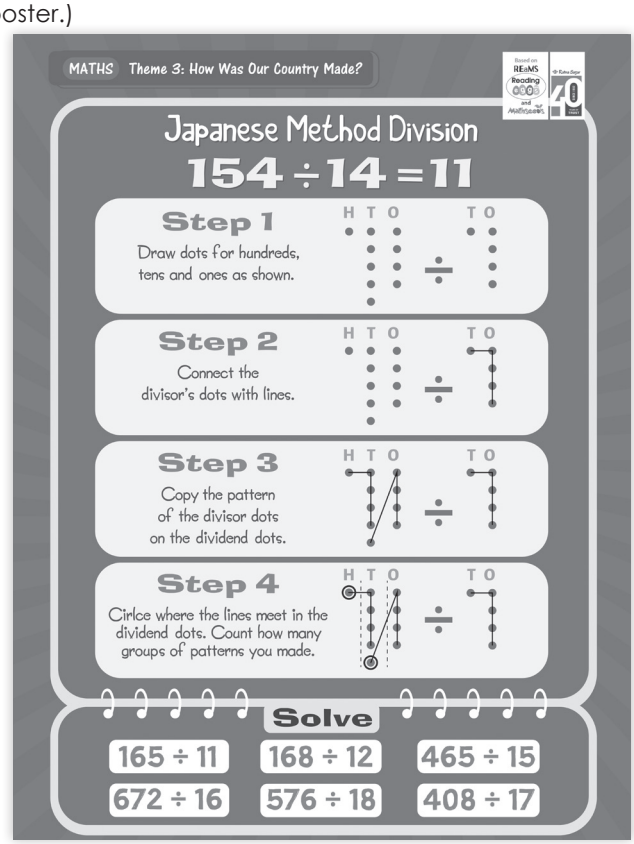
Teacher: Great. Let us move to a creative task now.

Poster

MUST DO

05 MIN.

(Please display and discuss the posters prominently in the classroom to reinforce the learning about the 'Japanese Method Division.' Encourage students to observe and discuss the poster.)

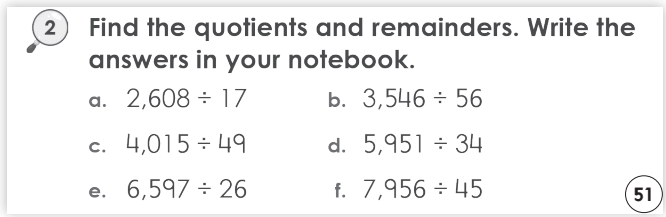


Teacher: Great learnings everyone.

Teacher: Open your books to page 51 and look at Exercise 2. Solve the problems in your notebook.

MUST DO

10 MIN.



Teacher: Remember to follow the steps for long division. Check if the remainder is smaller than the divisor.

Teacher: I will check your answers as you solve.

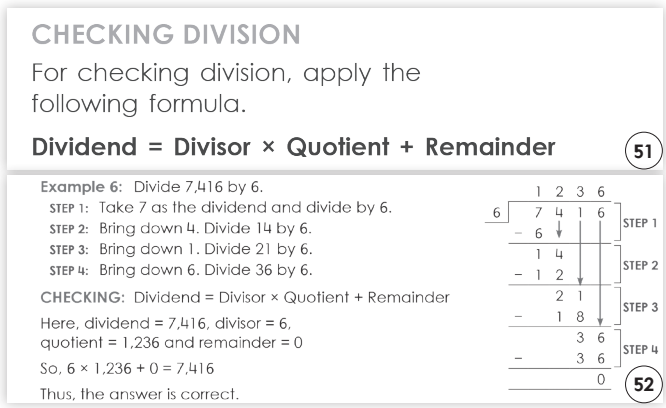
Teacher: Well done. Now, let us learn how to check if our division is correct.

Checking Division

Teacher: Open your books to page 51 and look at the 'Checking Division' section.

MUST DO

05 MIN.



Teacher: Look at the checking formula:

Teacher: Dividend = Divisor × Quotient + Remainder.

Teacher: Let us apply it to 5,685 ÷ 18.

Teacher: What is 18 × 315?

Teacher: Yes, it is 5,670. Now, add the remainder 15.

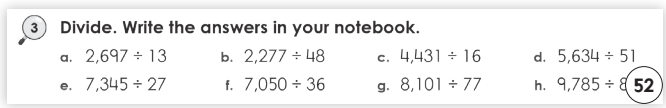
Teacher: Yes, 5,670 + 15 = 5,685. The answer is correct.

Teacher: Always use this method to check your division answers. Now, let us practise questions.

Teacher: Open your books to page 52 and look at Exercise 3. Solve parts (a) to (d) in your notebook.

MUST DO

05 MIN.



Teacher: Follow the steps carefully and check your answers using the formula.

Teacher: I will walk around and check your progress.

Teacher: Well done, everyone. You all did a great job today. Let us end with a big round of applause for your hard work. See you in the next class!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Solve the following sums check your answer using the formula Dividend = Divisor × Quotient + Remainder.

- 7,512 ÷ 24
- 8,936 ÷ 32
- 9,648 ÷ 28

80 km/hr

Solve the following using long division and verify if the remainder is less than the divisor.

- 6,723 ÷ 21
- 5,814 ÷ 17
- 7,256 ÷ 26

40 km/hr

Solve the following using long division method. Follow the steps carefully and check your answers.

- 84 ÷ 6
- 75 ÷ 5
- 92 ÷ 4

Home Task

Solve questions (e) to (h) of Exercise 3 given on page 52 in your Main Course Book. Write the answers neatly in your notebook.

Period 5

MUST DO

05 MIN.

Teacher: Good morning students. How are you?

Teacher: Today, we will play a quick game called 'Round off and Say. ' I will give you a number, and you will round off it to the nearest tens, hundreds or thousands.

Teacher: 68. Round off it to the nearest tens.

Teacher: Yes, 70.

Teacher: 526. Round off it to the nearest hundreds.

Teacher: Correct, 500.

Teacher: 8,345. Round off it to the nearest thousands.

Teacher: Right, 8,000.

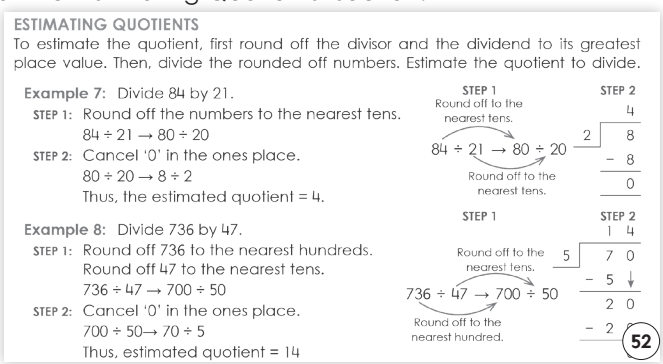
Teacher: Well done. Rounding off numbers helps us simplify calculations. Now, let us move ahead and apply rounding in division.

Estimating Quotients

MUST DO

05 MIN.

Teacher: Open your books to page 52 at the 'Estimating Quotients' section.



ESTIMATING QUOTIENTS

To estimate the quotient, first round off the divisor and the dividend to its greatest place value. Then, divide the rounded off numbers. Estimate the quotient to divide.

Example 7: Divide 84 by 21.

STEP 1: Round off the numbers to the nearest tens.
84 ÷ 21 → 80 ÷ 20

STEP 2: Cancel '0' in the ones place.
80 ÷ 20 → 8 ÷ 2
Thus, the estimated quotient = 4.

STEP 1: Round off to the nearest tens.
84 ÷ 21 → 80 ÷ 20
Round off to the nearest tens.

STEP 2:
4
2 | 8
− 8
0

Example 8: Divide 736 by 47.

STEP 1: Round off 736 to the nearest hundreds.
Round off 47 to the nearest tens.
736 ÷ 47 → 700 ÷ 50

STEP 2: Cancel '0' in the ones place.
700 ÷ 50→ 70 ÷ 5
Thus, estimated quotient = 14

STEP 1: Round off to the nearest tens.
736 ÷ 47 → 700 ÷ 50
Round off to the nearest hundred.

STEP 2:
1 4
5 | 7 0
− 5 ↓
2 0
− 2 0

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Teacher: We have learnt how to round off the numbers. Now, let us use that to estimate quotients.

Teacher: Look at the first example: 84 ÷ 21. The numbers are rounded off to the nearest tens: 80 ÷ 20. What is the estimated quotient?

Teacher: Yes, 4.

Teacher: Now, look at 736 ÷ 47. It is rounded off to 700 ÷ 50. What is the estimated quotient?

Teacher: Correct, 14.

(Discuss the explanation with the students.)

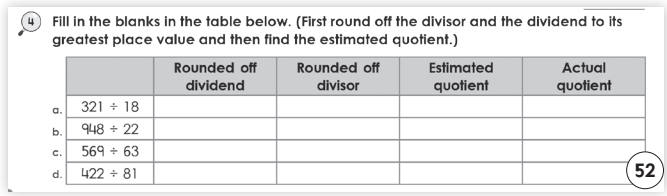
Teacher: Now, complete the remaining examples in your notebooks.

Teacher: Well done. Now, let us move to solving division exercises.

MUST DO

10 MIN.

Teacher: Open your books to page 52 and solve Exercise 4. Solve the given division problems in your notebooks.



4 Fill in the blanks in the table below. (First round off the divisor and the dividend to its greatest place value and then find the estimated quotient.)

		Rounded off dividend	Rounded off divisor	Estimated quotient	Actual quotient
a.	321 ÷ 18				
b.	948 ÷ 22				
c.	569 ÷ 63				
d.	422 ÷ 81				

52

Teacher: I will walk around and check your progress. Raise your hands if you face any difficulty.

Teacher: Great effort, everyone. Now, let us learn about division by 10, 100 and 1000.

(You may show CRM signs to settle down the class.)

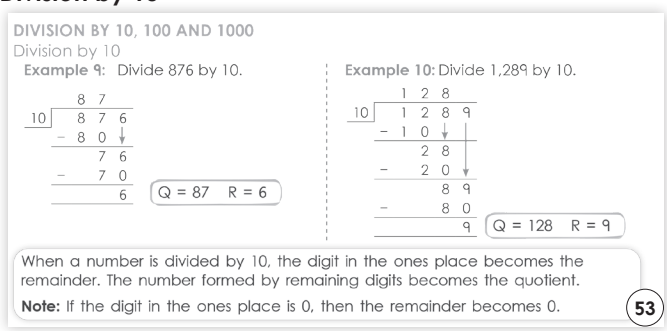
Division by 10, 100 and 1000

MUST DO

10 MIN.

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

Division by 10



DIVISION BY 10, 100 AND 1000

Division by 10

Example 9: Divide 876 by 10.

10 | 8 7 6
− 8 0 ↓
7 6
− 7 0
6
Q = 87 R = 6

Example 10: Divide 1,289 by 10.

10 | 1 2 8 9
− 1 0 ↓
2 8
− 2 0 ↓
8 9
− 8 0
9
Q = 128 R = 9

When a number is divided by 10, the digit in the ones place becomes the remainder. The number formed by remaining digits becomes the quotient.

Note: If the digit in the ones place is 0, then the remainder becomes 0.

53

Teacher: Open your books to page 53 and look at the 'Division by 10' section.

Teacher: Look at the first example: 876 ÷ 10. What do you notice about the quotient and remainder?

Teacher: Yes, the last digit (ones place) becomes the remainder and the remaining digits form the quotient.

Teacher: If we divide 1,289 ÷ 10, what will be the quotient?

Teacher: Correct, 128. And what is the remainder?

Teacher: Yes, it is 9, because the ones place becomes the remainder. Let us understand 'Division by 100'

Division by 100

Teacher: Look at the first example: 549 ÷ 100. What happens to the last two digits?

Division by 100

Example 11: Divide 549 by 100.

```
        5
100 ) 5 4 9
    - 5 0 0
        4 9
```

Q = 5 R = 49

Example 12: Divide 3,996 by 100.

```
          3 9
100 ) 3 9 9 6
    - 3 0 0
        9 9 6
      - 9 0 0
          9 6
```

Q = 39 R = 96

When a number is divided by 100, the digits in the tens and ones place become the remainder. The number formed by remaining digits becomes the quotient.

Note: If the digit in the tens and ones place is 00, then the remainder becomes 53

Teacher: Yes, the last two digits (49) become the remainder and the remaining digit forms the quotient (5).

Teacher: Now, look at 3,996 ÷ 100. What will be the quotient?

Teacher: Correct, 39. And what is the remainder?

Teacher: Yes, 96, because the last two digits always become the remainder when dividing by 100 .Let us move to understand 'Division by 1000'

Division by 1000

Division by 1000

Example 13: Divide 3,214 by 1,000.

```
           3
1000 ) 3 2 1 4
     - 3 0 0 0
         2 1 4
```

Q = 3 R = 214

Example 14: Divide 46,785 by 1,000.

```
           4 6
1000 ) 4 6 7 8 5
     - 4 0 0 0
         6 7 8 5
       - 6 0 0 0
           7 8 5
```

Q = 46 R = 785

When a number is divided by 1000, the digits in the hundreds, tens and ones place become the remainder. The number formed by the remaining digits becomes the quotient.

Note: If the digit in the hundreds, tens and ones place is 000, then the remainder becomes 0. 53

Teacher: Look at the first example: 3,214 ÷ 1,000. What happens to the last three digits?

Teacher: Yes, the last three digits (214) become the remainder and the remaining digit forms the quotient (3).

Teacher: Now, let us check 46,785 ÷ 1,000. What will be the quotient?

Teacher: Correct, the quotient is 46. And what is the remainder?

Teacher: Yes, 785, because when a number is divided by 1,000, the last three digits always become the remainder.

You may show the **I Explain** given on the digital platform to learn the concept.

Understanding better

Teacher: Open your books to page 54 and look at the 'Understanding better' section.

MUST DO

05 MIN.

Understanding better

Answer the following questions.

1. What will be the quotient if 8,206 is divided by 100?
2. What will be the remainder if 6,547 is divided by 10?
3. Is the remainder always greater than the divisor? Yes or no.

ICL 54

Teacher: Let us answer these questions together.

Teacher: What will be the quotient if 8,206 ÷ 100?

Teacher: Yes, the quotient is 82 and the remainder is 6. (Discuss the remaining questions in a similar way.)

Teacher: Great thinking. Now, let us practise more division problems.

Teacher: Open your books to page 54. Solve questions (a) to (c) of Exercise 5 in pairs.

MUST DO

05 MIN.

5 Divide each of the following numbers by 10, 100 and 1,000 in the table given below. Write the quotient and the remainder.

		Division by 10	Division by 100	Division by 1,000
a.	2,408			
b.	7,594			
c.	5,567			
d.	8,850			
e.	9,402			

54

Teacher: One of you will solve division by 10 and the other will solve division by 100. Then, check each other's work before solving division by 1,000 together.

Teacher: Write both the quotient and the remainder for each.

Teacher: I will check your answers as you solve.

Teacher: Well done, everyone. You all did a great job today. Let us end with a big round of applause for your teamwork and learning. See you in the next class!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Estimate the quotient by rounding before dividing. Compare estimated and actual quotient.

- 9,642 ÷ 21
- 8,756 ÷ 35
- 7,823 ÷ 29

80 km/hr

Find the quotient and remainder.

- 5,634 ÷ 1,000
- 8,450 ÷ 1,000
- 9,718 ÷ 1,000

40 km/hr

Solve and identify the quotient and remainder.

- 720 ÷ 10, 720 ÷ 100
- 9,500 ÷ 10, 9,500 ÷ 100
- 8,430 ÷ 10, 8,430 ÷ 100

Home Task

Solve (d) and (e) of Exercise 5 given on page 53 in your Main Course Book.

Period 6

SHOULD DO

05 MIN.

Teacher: Good morning students. How are you?

Teacher: Let us play a quick game called 'Quick Division'. I will give you a number and you will divide it by 10, 100 or 1,000.

Teacher: 6,840 ÷ 10.

Teacher: Yes, the quotient is 684.

Teacher: 9,500 ÷ 100.

Teacher: Correct, the quotient is 95.

Teacher: 72,000 ÷ 1,000.

Teacher: Right, the quotient is 72.

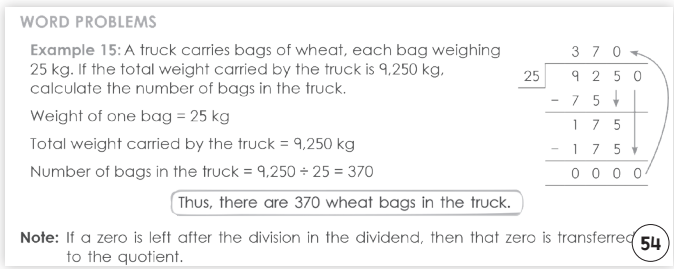
Teacher: Well done. Dividing by 10, 100 and 1,000 helps us simplify calculations. Now, let us move to solving word problems.

Word Problems

MUST DO

10 MIN.

Teacher: Open your books to page 54. Let us understand word problems.



WORD PROBLEMS

Example 15: A truck carries bags of wheat, each bag weighing 25 kg. If the total weight carried by the truck is 9,250 kg, calculate the number of bags in the truck.

Weight of one bag = 25 kg

Total weight carried by the truck = 9,250 kg

Number of bags in the truck = 9,250 ÷ 25 = 370

Thus, there are 370 wheat bags in the truck.

Note: If a zero is left after the division in the dividend, then that zero is transferred to the quotient.

54

Teacher: Read Example 15 carefully.

Teacher: A truck carries 9,250 kg of wheat and each bag weighs 25 kg. How do we find the number of bags?

Teacher: Yes, we divide 9,250 by 25. What is the quotient?

Teacher: Correct, 370 bags.

(Discuss the example with the students.)

Teacher: Now, look at the note. What happens when the remainder is zero?

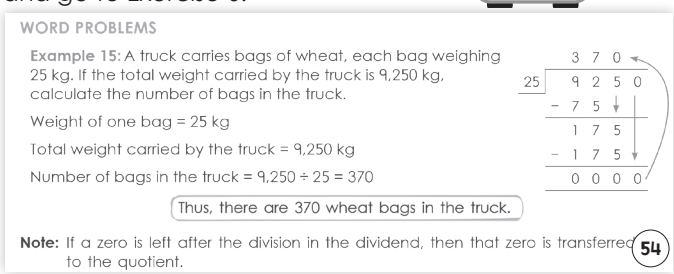
Teacher: Yes, it is transferred to the quotient.

Teacher: Great. Now, let us solve similar problems in Exercise 6.

MUST DO

20 MIN.

Teacher: Open your books to page 54 and go to Exercise 6.



WORD PROBLEMS

Example 15: A truck carries bags of wheat, each bag weighing 25 kg. If the total weight carried by the truck is 9,250 kg, calculate the number of bags in the truck.

Weight of one bag = 25 kg

Total weight carried by the truck = 9,250 kg

Number of bags in the truck = 9,250 ÷ 25 = 370

Thus, there are 370 wheat bags in the truck.

Note: If a zero is left after the division in the dividend, then that zero is transferred to the quotient.

54

Teacher: Work in pairs to solve these word problems. Both of you will solve the problem separately, then compare your answers. Discuss any differences and check your steps together.

Teacher: Solve the first problem together:

Teacher: 1,386 teddy bears are packed in 11 boxes. How many are in each box?

Teacher: What is the dividend? What is the divisor?

Teacher: Now, divide and compare your answers.

Teacher: Now, continue solving the remaining problems in pairs. Discuss your answers and explain your steps to each other.

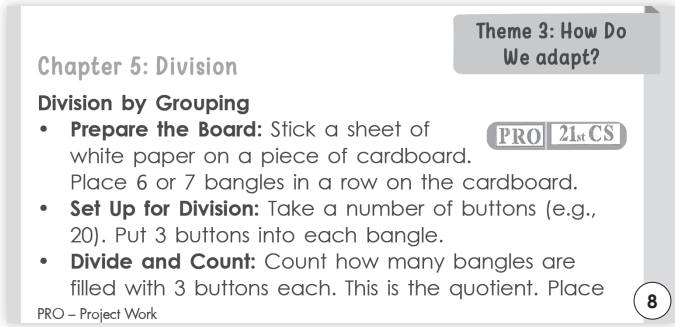
Teacher: Once you are done, compare your answers with another pair and discuss any differences.

Book of Project Ideas

COULD DO

05 MIN.

Teacher: Today, we will discuss a fun project on division. You will complete it at home and bring it to class in the last period of this chapter.



Theme 3: How Do We adapt?

Chapter 5: Division

Division by Grouping

PRO | 21st CS

- **Prepare the Board:** Stick a sheet of white paper on a piece of cardboard. Place 6 or 7 bangles in a row on the cardboard.
- **Set Up for Division:** Take a number of buttons (e.g., 20). Put 3 buttons into each bangle.
- **Divide and Count:** Count how many bangles are filled with 3 buttons each. This is the quotient. Place any leftover buttons outside the bangles. These are the remainder.
- **Check the Results:** For example, if you divide 20 by 3, you'll have 6 bangles with 3 buttons each and 2 buttons left over.
- **Practice More:** Try dividing other numbers using this method to get more practice.

PRO – Project Work

8

9

Teacher: First, take a piece of cardboard and stick a white sheet on it. Arrange 6 or 7 bangles in a row.

Teacher: Take 20 buttons and place 3 buttons in each bangle until all are used.

Teacher: Count the filled bangles. What do we call this?

Teacher: Yes, the quotient! Any leftover buttons are the remainder.

Teacher: If we divide 20 by 3, we get 6 complete bangles with 2 buttons left over.

Teacher: Discuss in pairs:

- What materials will you need?
- What number will you try dividing?
- How will you check your answer?

Teacher: Share your ideas with the class.

Teacher: Great! Try different numbers at home and bring your projects to class in the last period. I am excited to see your work!

Teacher: Well done, everyone. You worked hard today. Let us give a round of applause to each other. See you in the next period.

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Create two-word problems based on division. One should involve division by a two-digit number and the other should include division by 10, 100 or 1,000. Swap your problems with another pair and solve each other's questions.

80 km/hr

Create one word problem based on division by 1,000. Write the complete problem, including real-life context. Exchange with another pair and solve their word problem.

40 km/hr

Solve the following word problems together. One of you will read the problem and both will discuss and solve it step by step.

- A bakery has 4,200 cupcakes to pack in boxes of 10. How many boxes will be needed?
- A company distributes 12,600 flyers across 100 locations. How many flyers are given at each location?

Home Task

Create a project as instructions given below and bring it to class in the last period of this chapter.

- Prepare the Board: Stick a sheet of white paper on a piece of cardboard. Place 6 or 7 bangles in a row on the cardboard.
- Set Up for Division: Take a number of buttons (e.g., 20). Put 3 buttons into each bangle.
- Divide and Count: Count how many bangles are filled with 3 buttons each. This is the quotient. Place any leftover buttons outside the bangles. These are the remainder.
- Check the Results: For example, if you divide 20 by 3, you'll have 6 bangles with 3 buttons each and 2 buttons left over.
- Practise More: Try dividing other numbers using this method to get more practise.

Period 7

SHOULD DO

05 MIN.

Teacher: Good morning, students! Today, we will start with a quick and fun activity. I will give you a total number of objects and you will figure out how many equal groups you can make with that number. Are you ready?

Teacher: First number – 18. How many groups of 3 can we make?

Teacher: Yes, 6 groups of 3.

Teacher: Next, 24. How many groups of 4 can we make?

Teacher: Correct, 6 groups of 4.

Teacher: Now, 36. How many groups of 6 can we make?

Teacher: Right, 6 groups of 6.

Teacher: Last one, 30. How many groups of 5 can we make?

Teacher: Excellent, 6 groups of 5.

Teacher: Well done. Now, let us move forward and connect division with real-life situations.

Connecting better

MUST DO

05 MIN.

Teacher: We use division in many situations in our daily life. Imagine we need to distribute 24 pencils among 6 students equally. How many will each student get?


Connecting better

Science

After a day at the city library, Maria went home. She stopped by the nearby mall to buy indoor plants. When she reached home, Maria noticed that her mother was watering the plants. Maria's mother pointed to one of them and asked, "Do you know which part of the plant is also called its kitchen?" Maria confidently replied, "The leaf is called the kitchen of the plant."

55

Teacher: Open your books to the 'Connecting better' section on page 55. Read and think about how division is useful in real-life activities like conserving water.

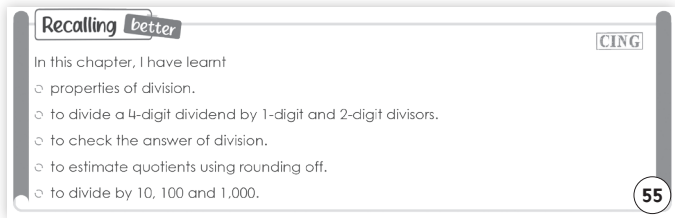
Teacher: Discuss with your partner: How can division help in fair distribution of resources?

Recalling better

MUST DO

10 MIN.

Teacher: Open your books to the 'Recalling better' section on page 55. Let us discuss some division strategies that help us solve problems efficiently.


Recalling better

In this chapter, I have learnt

- properties of division.
- to divide a 4-digit dividend by 1-digit and 2-digit divisors.
- to check the answer of division.
- to estimate quotients using rounding off.
- to divide by 10, 100 and 1,000.

55

Teacher: What do we call the number being divided? Yes, that is the dividend.

Teacher: What is the number we divide by? That is the divisor.

Teacher: What is the result of division? That is the quotient.

Teacher: What do we call the leftover part when division is not exact? That is the remainder.

(Discuss the 'Recalling better' section with students.)

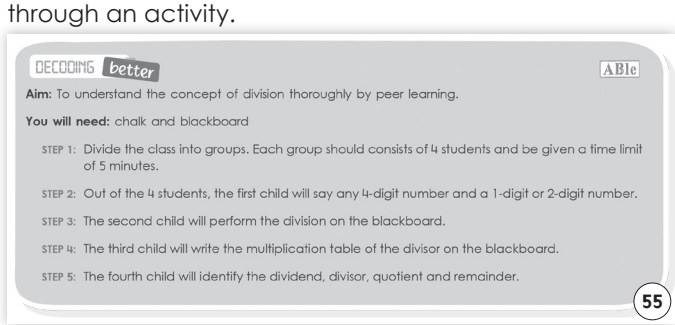
Decoding better

MUST DO

10 MIN.

Teacher: Open your books to page 55 and turn to the 'Decoding better' section.

Teacher: Let us understand the concept of division through an activity.


DECODING better

ABIe

Aim: To understand the concept of division thoroughly by peer learning.

You will need: chalk and blackboard

STEP 1: Divide the class into groups. Each group should consists of 4 students and be given a time limit of 5 minutes.

STEP 2: Out of the 4 students, the first child will say any 4-digit number and a 1-digit or 2-digit number.

STEP 3: The second child will perform the division on the blackboard.

STEP 4: The third child will write the multiplication table of the divisor on the blackboard.

STEP 5: The fourth child will identify the dividend, divisor, quotient and remainder.

55

(Guide the students as instructions given in the 'Decoding better section'.)

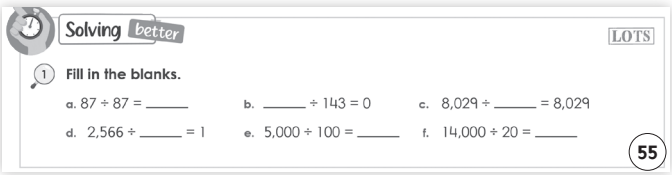
Teacher: Work with your partner and discuss your observations. Raise your hand if you need any help.

You may show the **Quiz** given on the digital platform to practise the concept.

Solving better

MUST DO
10 MIN.

Teacher: Open your books to page 56 and turn to Exercise 2.

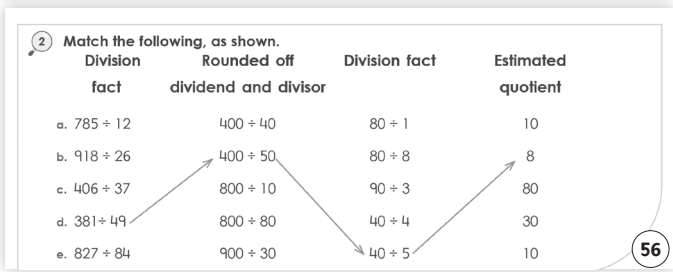

Solving better LOTS

1. Fill in the blanks.

a. 87 ÷ 87 = _____ b. _____ ÷ 143 = 0 c. 8,029 ÷ _____ = 8,029

d. 2,566 ÷ _____ = 1 e. 5,000 ÷ 100 = _____ f. 14,000 ÷ 20 = _____

55


2. Match the following, as shown.

Division fact	Rounded off dividend and divisor	Division fact	Estimated quotient
a. 785 ÷ 12	400 ÷ 40	80 ÷ 1	10
b. 918 ÷ 26	400 ÷ 50	80 ÷ 8	8
c. 406 ÷ 37	800 ÷ 10	90 ÷ 3	80
d. 381÷ 49	800 ÷ 80	40 ÷ 4	30
e. 827 ÷ 84	900 ÷ 30	40 ÷ 5	10

56

Teacher: This is a matching activity. You need to match the division fact with the rounded off numbers, the actual division and the estimated quotient.

Teacher: Work in pairs and solve the first one together: 785 ÷ 12.

Teacher: What is the rounded off form?

Teacher: Yes, 800 ÷ 10. What is the estimated quotient?

Teacher: Correct, 8.

Teacher: Now, complete the rest with your partner and compare answers with another pair.

Teacher: Great work. You have worked very hard. Let us give a round of applause for our teamwork. See you in the next class!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Create a division-based real-life word problem and swap it with another pair to solve.

80 km/hr

Write a division problem that requires rounding off and estimation before solving. Swap your question with your classmate and solve it.

40 km/hr

Solve the following division problems and check your answers.

- 144 ÷ 12
- 1,200 ÷ 40
- 9,600 ÷ 100

Home Task

Solving better

Solve Exercise 1 of 'Solving better' given on page 55 in the Main Course Book.

Period 8

SHOULD DO
05 MIN.

Teacher: Good morning, students. Let us begin with a quick activity called 'Quick Think'.

Teacher: 2,400 ÷ 100?

Teacher: Yes, 24.

Teacher: 9,000 ÷ 1,000?

Teacher: Correct, 9.

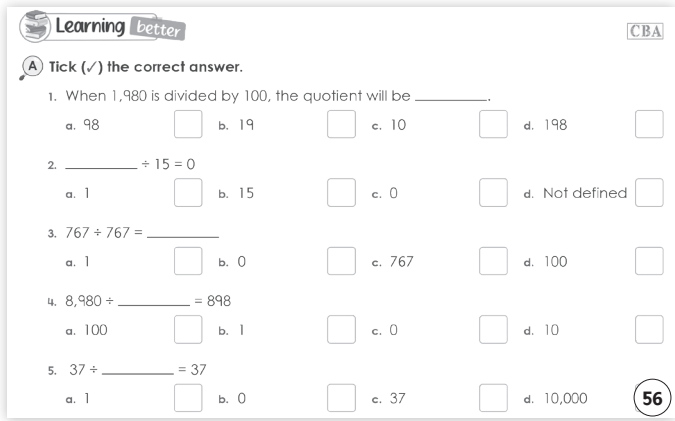
Teacher: Now, divide 86,000 by 10, 100 and 1,000?

Teacher: Yes, 8,600, 860 and 8.

Teacher: Well done! Let us move solve exercise.

Must do 05 min

Teacher: Open your books to page 56. Solve Exercise A.


Learning better CBA

A. Tick (✓) the correct answer.

1. When 1,980 is divided by 100, the quotient will be _____.

a. 98 ☐ b. 19 ☐ c. 10 ☐ d. 198 ☐

2. _____ ÷ 15 = 0

a. 1 ☐ b. 15 ☐ c. 0 ☐ d. Not defined ☐

3. 767 ÷ 767 = _____

a. 1 ☐ b. 0 ☐ c. 767 ☐ d. 100 ☐

4. 8,980 ÷ _____ = 898

a. 100 ☐ b. 1 ☐ c. 0 ☐ d. 10 ☐

5. 37 ÷ _____ = 37

a. 1 ☐ b. 0 ☐ c. 37 ☐ d. 10,000 ☐

56

Teacher: This section has multiple-choice questions. Read each one carefully and tick the correct answer.

Teacher: Let us do the first one together:

Teacher: When 1,980 is divided by 100, what will the quotient be?

Teacher: Yes, it is 19.

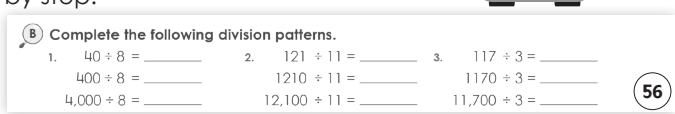
Teacher: Now, solve the remaining questions individually and discuss your answers with your partner.

Teacher: Well done! Now, let us move to the next exercise.

Teacher: Who will read and explain Exercise B?

MUST DO
10 MIN.

Teacher: Look at the given patterns. Observe how division is applied step by step.


B. Complete the following division patterns.

1. 40 ÷ 8 = _____	2. 121 ÷ 11 = _____	3. 117 ÷ 3 = _____
400 ÷ 8 = _____	1210 ÷ 11 = _____	1170 ÷ 3 = _____
4,000 ÷ 8 = _____	12,100 ÷ 11 = _____	11,700 ÷ 3 = _____

56

Teacher: Let us do one together:

Teacher: 40 ÷ 8 = ____.

Teacher: Yes, the answer is 5.

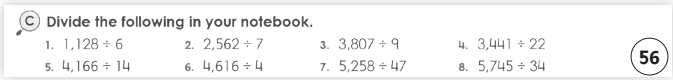
Teacher: Now, complete the rest and discuss your patterns with your partner.

Teacher: Great job! Now, let us practise more division problems in Exercise C.

You may show the **Mental Maths** given on the digital platform to practise the concepts.

MUST DO
10 MIN.

Teacher: Open your books to page 56 and look at Exercise C.


C Divide the following in your notebook.
1. 1,128 ÷ 6 2. 2,562 ÷ 7 3. 3,807 ÷ 9 4. 3,441 ÷ 22
5. 4,166 ÷ 14 6. 4,616 ÷ 4 7. 5,258 ÷ 47 8. 5,745 ÷ 34
56

Teacher: Solve these division problems in your notebooks. Work in pairs and after solving, compare your answers with your partner.

Teacher: Let us do the first one together:

Teacher: 1,128 ÷ 6. Let us do it with the long division method. What is the quotient?

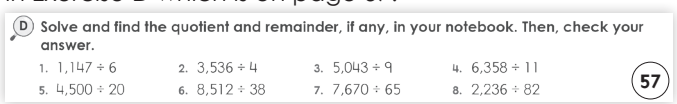
Teacher: Yes, the answer is 188.

Teacher: Now, continue solving the remaining problems. Raise your hand if you face any difficulty.

Teacher: Well done! Now, let us move to the next exercise. (You may show **CRM signs** to settle down the class.)

MUST DO
10 MIN.

Teacher: Who will explain what to do in Exercise D which is on page 57.


D Solve and find the quotient and remainder, if any, in your notebook. Then, check your answer.
1. 1,147 ÷ 6 2. 3,536 ÷ 4 3. 5,043 ÷ 9 4. 6,358 ÷ 11
5. 4,500 ÷ 20 6. 8,512 ÷ 38 7. 7,670 ÷ 65 8. 2,236 ÷ 82
57

Teacher: Solve them in your notebook and check your answers using multiplication.

Teacher: Work in pairs—one of you will solve and the other will check the answer using multiplication. Then, switch roles.

Teacher: Let us solve the first one together:

Teacher: 1,147 ÷ 6. What is the quotient?

Teacher: Yes, 191 and the remainder is 1.

Teacher: Now, complete question (2) to (4) with your partner.

Teacher: Well done, everyone. You all worked very hard today. Let us give a round of applause for our teamwork. See you in the next period!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Create a real-life word problem involving division and exchange it with a partner to solve.

80 km/hr

Estimate and then solve the following division problems. Compare your estimated and actual quotients.

- 7,432 ÷ 21
- 8,925 ÷ 30

40 km/hr

Solve these problems and verify the answers using multiplication.

- 640 ÷ 8
- 9,600 ÷ 40
- 1,200 ÷ 10

Home Task

Solving better

Solve questions (5) to (8) of Exercise D given on page 57 in the Main Course Book. Write the answers neatly in the notebook.

Period 9

SHOULD DO
05 MIN.

Teacher: Good morning, students. Today, we will play a quick game called 'Guess the Remainder'.

Teacher: I will give you a division problem and you have to only tell me the remainder without solving the full division.

Teacher: 25 ÷ 4. What is the remainder?

Teacher: Yes, 1, because 24 is the closest multiple of 4 to 25.

Teacher: Now, 38 ÷ 5.

Teacher: Correct, 3, because 35 is the closest multiple of 5.

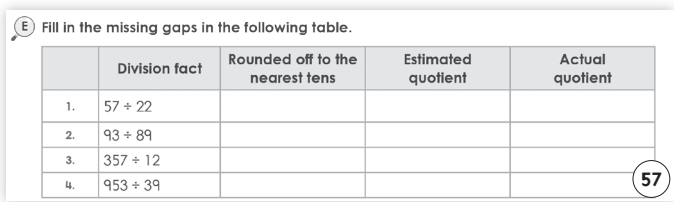
Teacher: One more, 49 ÷ 6.

Teacher: Yes, 1, because 48 is the nearest multiple of 6.

Teacher: Well done! It will help in checking division answers quickly. Now, let us move on to exercises.

MUST DO
10 MIN.

Teacher: Open your books to page 57 and look at Exercise E.


E Fill in the missing gaps in the following table.

	Division fact	Rounded off to the nearest tens	Estimated quotient	Actual quotient
1.	57 ÷ 22			
2.	93 ÷ 89			
3.	357 ÷ 12			
4.	953 ÷ 39			

57

Teacher: Look at the table. You need to round off the numbers, estimate the quotient and find the actual quotient.

Teacher: Let us do the first one together.

Teacher: 57 ÷ 22. Round off 57 to 60 and 22 to 20, now estimate.

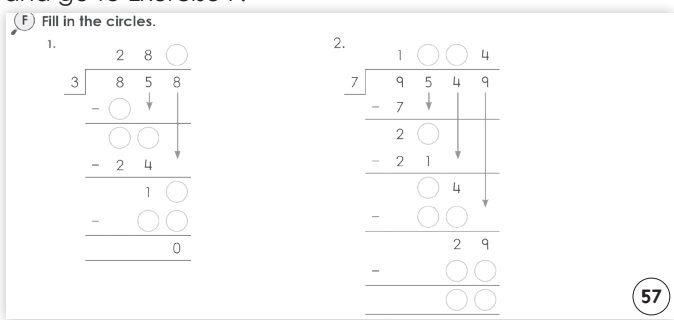
Teacher: Yes, 60 ÷ 20 = 3.

Teacher: Now, find the actual quotient.

Teacher: Good, now complete the rest with your partner.

MUST DO
10 MIN.

Teacher: Open your books to page 57 and go to Exercise F.


F Fill in the circles.
1.
2 8 ○
3 | 8 5 8
− ○
○ ○
− 2 4
1 ○
− ○ ○
0

2.
1 ○ ○ 4
7 | 9 5 4 9
− 7
2 ○
− 2 1
○ 4
− ○ ○
2 9
− ○ ○
○ ○

57

Teacher: Look at the division steps, but the circles are empty. You need to fill in the missing numbers.

Teacher: Let us do the first one together.

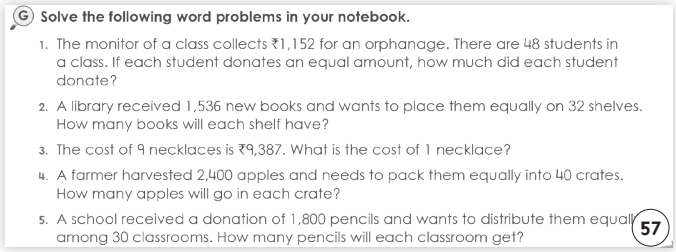
Teacher: What number should go in the first circle?

Teacher: Yes, the quotient digit.

Teacher: Continue filling in the blanks and check with your partner.

MUST DO 10 MIN.

Teacher: Well done! Now, let us solve some word problems.



Solve the following word problems in your notebook.

1. The monitor of a class collects ₹1,152 for an orphanage. There are 48 students in a class. If each student donates an equal amount, how much did each student donate?
2. A library received 1,536 new books and wants to place them equally on 32 shelves. How many books will each shelf have?
3. The cost of 9 necklaces is ₹9,387. What is the cost of 1 necklace?
4. A farmer harvested 2,400 apples and needs to pack them equally into 40 crates. How many apples will go in each crate?
5. A school received a donation of 1,800 pencils and wants to distribute them equally among 30 classrooms. How many pencils will each classroom get?

57

Teacher: Open your books to page 57 and look at Exercise G.

Teacher: Solve questions 1, 2 and 3 in your notebook. Work in pair - one of you will read the problem aloud and both will discuss how to set up the division equation before solving.

Teacher: Let us solve the first one together.

Teacher: A class collects ₹1,152 for an orphanage. There are 48 students. How much did each student donate?

Teacher: What is the dividend?

Teacher: Yes, 1,152. What is the divisor?

Teacher: Correct, 48. Now, divide.

Teacher: The quotient is 24, so each student donated ₹24.

Teacher: Now, complete the remaining two questions with your partner.

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

Doubt Session

Teacher: If anyone has doubts about any of the exercises, now is the time to ask.

COULD DO 05 MIN.

Teacher: Discuss with your partner first and if you still need help, I will assist you.

Teacher: Well done, everyone. You worked hard today. Let us give a round of applause for our teamwork. See you in the next class!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Identify a real-life situation where division is used and create a story problem based on it. Exchange your problem with a partner and solve each other's questions.

80 km/hr

Solve the following division-based riddle:

- A farmer has 756 eggs. He packs them in cartons of 12 eggs each. How many cartons will he need?
- A library has 3,648 books and wants to arrange them in equal stacks of 24 books each. How many stacks will there be?

40 km/hr

Find and correct the mistakes in the following division problems:

- 984 ÷ 12 = 92 (Check the quotient)
- 6,300 ÷ 70 = 80 (Check the divisor and quotient)
- 2,750 ÷ 50 = 60 (Check the remainder)

Home Task

Solve questions (4) and (5) of Exercise G given on page 57 in your Main Course Book. Write the answers neatly in your notebook.

Bring your 'Little book' to revise and write the concepts in it.

Bring two paper plates, paint, a paintbrush, a cup of water, a pin and scissors for the 'Creating better' activity in the next class. Ensure all materials are ready for the Chameleon Spinner activity.

Period 10

Teacher: Good morning, students. Today, we will play a game called 'True or False – Stand or Sit'.

SHOULD DO 05 MIN.

Teacher: I will say a division sentence, If it is true, stay seated. If it is false, stand up.

Teacher: 72 ÷ 9 = 8.

Teacher: Yes, that is true, so everyone should be seated.

Teacher: 150 ÷ 5 = 35.

Teacher: That is false! The correct answer is 30, so you should be standing.

Teacher: 900 ÷ 100 = 90.

Teacher: False! The correct answer is 9, so you should be standing.

Teacher: Well done! This activity helps us think quickly about division. Now, let us move to our exercises.

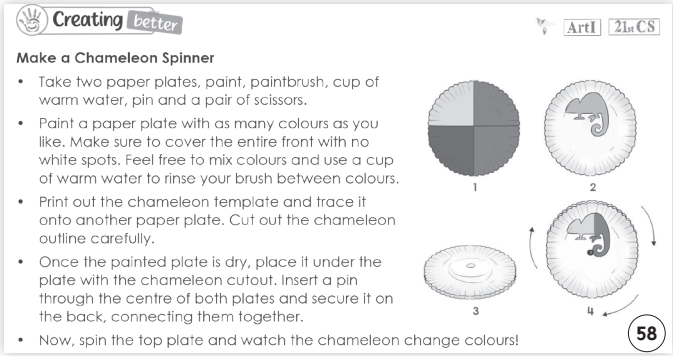
Creating better

Teacher: Open your books to page 58 and go to the 'Creating better' section.

MUST DO 15 MIN.

Teacher: Today, we will make a Chameleon Spinner. This will help us understand patterns and creativity while having fun.

(Guide students as per instructions given in 'Creating better' section.)


Creating better

ArtI 21stCS

Make a Chameleon Spinner

- Take two paper plates, paint, paintbrush, cup of warm water, pin and a pair of scissors.
- Paint a paper plate with as many colours as you like. Make sure to cover the entire front with no white spots. Feel free to mix colours and use a cup of warm water to rinse your brush between colours.
- Print out the chameleon template and trace it onto another paper plate. Cut out the chameleon outline carefully.
- Once the painted plate is dry, place it under the plate with the chameleon cutout. Insert a pin through the centre of both plates and secure it on the back, connecting them together.
- Now, spin the top plate and watch the chameleon change colours!

1 2 3 4

58

Teacher: Work in pairs and help each other. Discuss how the patterns change as you spin the plate.

Teacher: Well done! Now, let us think about a quick math question.

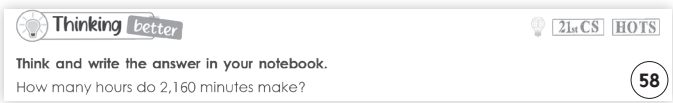
You may show the **Infographic** given on the digital platform.

Thinking better

MUST DO

05 MIN.

Teacher: Open your books to page 58 and go to the 'Thinking better' section.


Thinking better

21stCS HOTS

Think and write the answer in your notebook.

How many hours do 2,160 minutes make?

58

Teacher: How many hours do 2,160 minutes make?

Teacher: Discuss with your partner before answering.

Teacher: Yes, 36 hours.

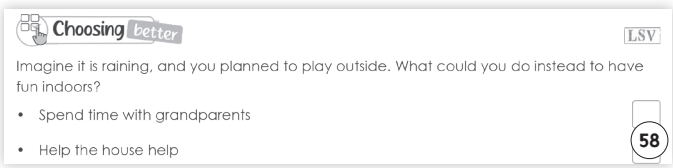
Teacher: Understanding time conversions helps us with planning and real-life situations. Now, let us move on to next activity.

Choosing better

MUST DO

05 MIN.

Teacher: Open your books to page 58 and go to the 'Choosing better' section.


Choosing better

LSV

Imagine it is raining, and you planned to play outside. What could you do instead to have fun indoors?

- Spend time with grandparents
- Help the house help

58

Teacher: Imagine it is raining and you had planned to play outside. What can you do instead to enjoy indoors?

Teacher: Discuss with your partner.

Teacher: Yes, spending time with grandparents, helping at home or playing indoor games.

Teacher: Great ideas! Now, let us revise a key math concept.

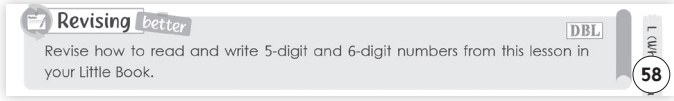
Revising better

MUST DO

05 MIN.

Teacher: Open your books to page 58 and go to the 'Revising better' section.

Teacher: Let us write what we have learnt in this chapter in the 'Little book'.


Revising better

DBL

Revise how to read and write 5-digit and 6-digit numbers from this lesson in your Little Book.

58

(Guide students to complete the activity.)

Teacher: Well done! Now, let us take a pledge.

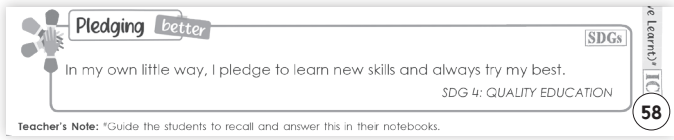
You may show the **HOTS** given on the digital platform to practise the concepts.

Pledging better

MUST DO

05 MIN.

Teacher: Open your books to page 58 and go to the 'Pledging better' section.


Pledging better

SDGs

In my own little way, I pledge to learn new skills and always try my best.

SDG 4: QUALITY EDUCATION

58

Teacher's Note: *Guide the students to recall and answer this in their notebooks.

Teacher: Read the pledge aloud:

Teacher: 'In my own little way, I pledge to learn new skills and always try my best.'

Teacher: Discuss in pairs: what new skill do you want to learn?

Teacher: Great! Learning never stops and we must always try our best.

Teacher: Well done, everyone. Let us give a round of applause for today's effort. See you in the next class!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Create a math puzzle using division. Swap your puzzle with a partner and solve each other's challenges.

80 km/hr

Write a short story where division is used in real life. Share your story with a partner.

40 km/hr

Solve these division-based riddles:

- I am a 3-digit number. When divided by 10, my quotient is 47. What am I?
- A shopkeeper has 720 apples. He packs them in boxes of 8. How many boxes does he need?

Home Task

Write two-word problems based on division and solve them in your notebook. Ensure one problem involves division with a remainder and the other involves division without a remainder.

Period 11

SHOULD DO

05 MIN.

Teacher: Good morning, students. Today, we will play a quick game called 'Fast Quotient'. I will give you simple division

problems and you have to answer them as quickly as possible.

Teacher: 144 ÷ 12?

Teacher: Yes, the quotient is 12.

Teacher: 2,100 ÷ 100?

Teacher: Correct, the quotient is 21.

Teacher: 5,600 ÷ 10?

Teacher: Right, the quotient is 560.

Teacher: 99 ÷ 3?

Teacher: Yes, the quotient is 33.

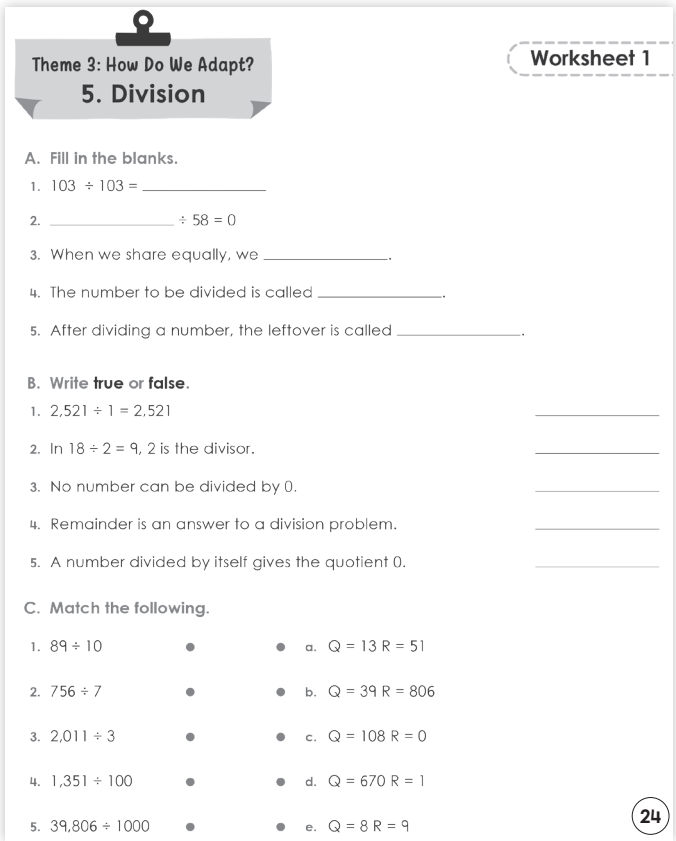
Teacher: Great! Quick mental division helps in daily calculations. Now, let us move to our worksheet.

Worksheet 1

MUST DO

20 MIN.

Teacher: Open your books to page 24 and go through Worksheet 1.



Theme 3: How Do We Adapt?

5. Division

Worksheet 1

A. Fill in the blanks.

1. 103 ÷ 103 = _____
2. _____ ÷ 58 = 0
3. When we share equally, we _____.
4. The number to be divided is called _____.
5. After dividing a number, the leftover is called _____.

B. Write **true** or **false**.

1. 2,521 ÷ 1 = 2,521 _____
2. In 18 ÷ 2 = 9, 2 is the divisor. _____
3. No number can be divided by 0. _____
4. Remainder is an answer to a division problem. _____
5. A number divided by itself gives the quotient 0. _____

C. Match the following.

1. 89 ÷ 10	●	● a. Q = 13 R = 51
2. 756 ÷ 7	●	● b. Q = 39 R = 806
3. 2,011 ÷ 3	●	● c. Q = 108 R = 0
4. 1,351 ÷ 100	●	● d. Q = 670 R = 1
5. 39,806 ÷ 1000	●	● e. Q = 8 R = 9

24

Teacher: This worksheet has three sections. Read each question carefully and solve them in your notebook.

Teacher: In Section A, fill in the blanks based on division facts.

Teacher: In Section B, true or false. Think carefully before answering.

Teacher: In Section C, match the division facts with their correct quotient and remainder.

Teacher: Work individually and check your answers with a partner once you finish. I will walk around to assist you if needed.

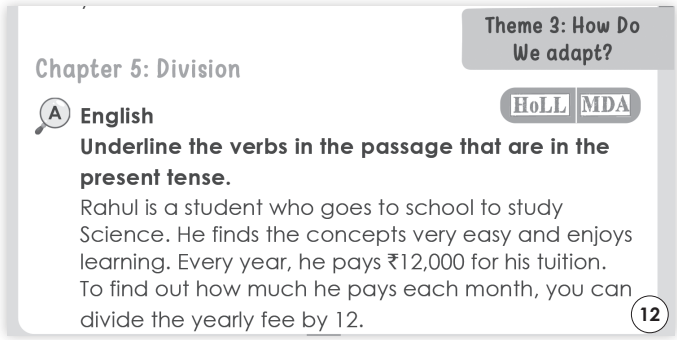
Teacher: Well done! Let us move to the next activity. (You may show CRM signs to settle down the class.)

Book of Holistic Teaching

COULD DO

10 MIN.

(Refer to the Book of Holistic Teaching, page 12,13 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.)



Theme 3: How Do We adapt?

Chapter 5: Division

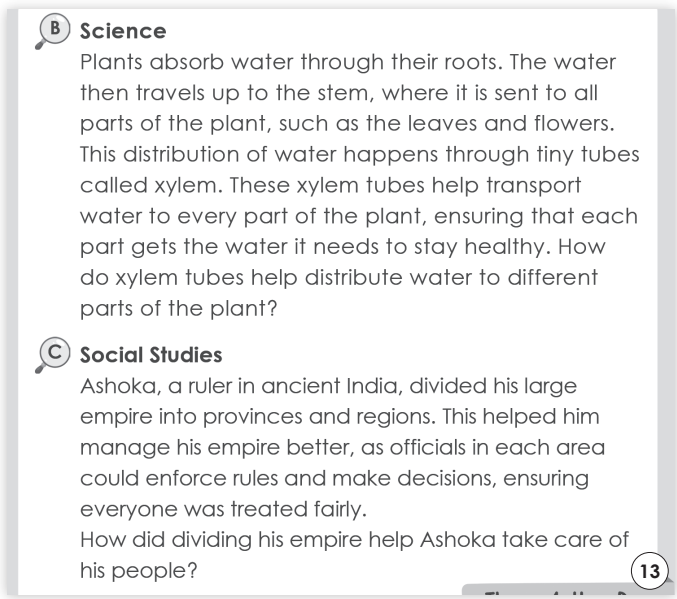
HoLL MDA

A **English**

Underline the verbs in the passage that are in the present tense.

Rahul is a student who goes to school to study Science. He finds the concepts very easy and enjoys learning. Every year, he pays ₹12,000 for his tuition. To find out how much he pays each month, you can divide the yearly fee by 12.

12



B **Science**

Plants absorb water through their roots. The water then travels up to the stem, where it is sent to all parts of the plant, such as the leaves and flowers. This distribution of water happens through tiny tubes called xylem. These xylem tubes help transport water to every part of the plant, ensuring that each part gets the water it needs to stay healthy. How do xylem tubes help distribute water to different parts of the plant?

C **Social Studies**

Ashoka, a ruler in ancient India, divided his large empire into provinces and regions. This helped him manage his empire better, as officials in each area could enforce rules and make decisions, ensuring everyone was treated fairly.

How did dividing his empire help Ashoka take care of his people?

13

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

Teacher: Let us take a few minutes to relax and focus. Close your eyes, sit comfortably and take a deep breath in... and out...

COULD DO

05 MIN.

Teacher: Focus on your breathing for the next minute. Let go of any tension in your body and relax your mind.

Teacher: Well done, everyone! You worked hard today. . See you in the next period!

Differentiated Activities

Solve the following questions using long division method.

110 km/hr

Create a math puzzle using division. Swap your puzzle with a partner and solve each other's challenges.

80 km/hr

Choose a 3-digit number and divide it by a 2-digit number. First, round off both numbers to the nearest tens and estimate the quotient. Then, divide the actual numbers and check the difference from your estimate.

40 km/hr

Write down a set of division problems on the board. Race against your partner to solve them one by one. The first one to finish all the problems correctly wins. Discuss the solutions with your partner.

Home Task

Practise the concepts discussed in the class. Bring your project in next period for presentation.

Period 12

SHOULD DO — 05 MIN.

Teacher: Good morning, students. Let us start with a quick warm-up. Today, we are going to solve a few division problems mentally. I will give you a division question and you will answer it as quickly as possible.

Teacher: 48 ÷ 8?

Teacher: Yes, the quotient is 6.

Teacher: 630 ÷ 9?

Teacher: Correct, the quotient is 70.

Teacher: 1,800 ÷ 100?

Teacher: Right, the quotient is 18.

Teacher: 2,250 ÷ 50?

Teacher: Yes, the quotient is 45.

Teacher: Great! Mental division helps us with faster calculations. Now, let us move on to our worksheet.

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

Worksheet 2

MUST DO — 20 MIN.

Teacher: Open your books to page 25 and turn to Worksheet 2.

Teacher: In Section A, tick the correct answer for each of the division-related questions.

Teacher: In Section B, fill in the blanks using the properties of division.

Teacher: In Section C, divide the given numbers by 10 and 100 and record the quotient and remainder.

Teacher: Work individually and complete all sections. If you finish early, you can check your answers with a partner. I will walk around to assist you if needed.

Worksheet 2

A. Tick (✓) the correct answer.

1. _____ ÷ 1 = 774
   a. 0 ☐ b. 774 ☐
   c. Not defined ☐ d. 775 ☐
2. We round off dividend and divisor for _____.
   a. division ☐ b. multiplication ☐
   c. estimation ☐ d. addition ☐
3. When 2786 is divided by 100, the remainder will be _____.
   a. 86 ☐ b. 27 ☐ c. 278 ☐ d. 786 ☐
4. The answer to a division problem is called _____.
   a. remainder ☐ b. quotient ☐
   c. divisor ☐ d. dividend ☐
5. When a number is divided by 1000, the digits in the hundreds, tens and ones place become the _____.
   a. divisor ☐ b. quotient ☐
   c. dividend ☐ d. remainder ☐

B. Fill in the blanks using properties of division.

1. 68 ÷ _____ = 68
2. 0 ÷ _____ = 0
3. 612 ÷ 612 = _____
4. 1454 ÷ _____ = 1454
5. _____ ÷ 3275 = 0

C. Divide the numbers given below by 10 and 100.

		Divide by 10		Divide by 100	
		Q	R	Q	R
1.	134				
2.	905				
3.	671				
4.	7,489				
5.	8,975				

25

Book of Project Ideas

COULD DO — 15 MIN.

(Please discuss the project assigned in the 6th period, focusing on helping students understand the objectives and addressing any challenges they faced)

Theme 3: How Do We adapt?

Chapter 5: Division

Division by Grouping

PRO | 21st CS

- **Prepare the Board:** Stick a sheet of white paper on a piece of cardboard. Place 6 or 7 bangles in a row on the cardboard.
- **Set Up for Division:** Take a number of buttons (e.g., 20). Put 3 buttons into each bangle.
- **Divide and Count:** Count how many bangles are filled with 3 buttons each. This is the quotient. Place any leftover buttons outside the bangles. These are the remainder.
- **Check the Results:** For example, if you divide 20 by 3, you'll have 6 bangles with 3 buttons each and 2 buttons left over.
- **Practice More:** Try dividing other numbers using this method to get more practice.

8

PRO – Project Work

9

Teacher: Well done students. Let us have a huge round of applause.

Differentiated Activities

110 km/hr

Choose a number between 1,000 and 2,000 and divide it by a two-digit number. Make it a challenge by including division problems with both quotients and remainders. Ask your partner to solve and check your answers.

80 km/hr

Solve these problems and explain the remainder in each case. After solving, create two more division problems that also involve remainders. Have your partner solve them.

- 935 ÷ 7
- 1,256 ÷ 9

40 km/hr

Find 3 objects around the room and divide them equally. For example, divide 24 pencils into 6 equal groups or 30 chairs into 5 rows. Write down the problems and solve them.

Home Task

Solve the following problems in your notebook:

a. A fruit seller has 960 apples. He packs them equally into 8 boxes. How many apples are there in each box?

b. A school library has 450 books. If the books are arranged equally in 9 shelves, how many books are there on each shelf?

Period 13

SHOULD DO 05 MIN.

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

Teacher: Let us begin with a quick mental maths activity. I will say a division problem and you will answer as quickly as possible.

Teacher: 24 ÷ 6 = ?

Teacher: 81 ÷ 9 = ?

Teacher: 144 ÷ 12 = ?

Teacher: 100 ÷ 10 = ?

Teacher: Great job! . Let us keep practicing division as we move forward.

Worksheet 3

MUST DO 20 MIN.

Teacher: Open your books to page 26 and go to Worksheet 3.

Teacher: In Section A, tick the correct answer for each of the division-related questions.

Teacher: In Section B, fill in the blanks using properties of division.

Teacher: In Section C, divide the numbers given by 1000 and record the quotient and remainder.

Teacher: Work individually and complete all sections. If you finish early, you can check your answers with a partner. I will be walking around to assist you if needed.

Worksheet 3

A. Tick (✓) the correct answer.

1. 666 ÷ 18 = _____
   a. 37 ☐ b. 28 ☐ c. 73 ☐ d. 28 ☐
2. 1700 ÷ _____ = 17
   a. 1000 ☐ b. 10 ☐ c. 1 ☐ d. 100 ☐
3. 173 ÷ _____ = Not defined
   a. 100 ☐ b. 0 ☐ c. 1 ☐ d. 173 ☐
4. Zero divided by any number (except zero) gives _____.
   a. number itself ☐ b. 0 ☐
   c. 1 ☐ d. 100 ☐
5. If a 3-digit number with same digits is divided by its sum of digits, the quotient is always _____.
   a. 35 ☐ b. 40 ☐ c. 37 ☐ d. 36 ☐

B. Fill in the blanks using properties of division.

1. 783 ÷ 783 = _____
2. 4,592 ÷ 1 = _____
3. 0 ÷ 129 = _____
4. 8,975 ÷ 8,975 = _____
5. 0 ÷ 7,336 = _____

C. Divide the numbers given below by 1000.

		Divide by 1000	
		Q	R
1.	6,547		
2.	2,219		
3.	8,631		
4.	84,002		
5.	76,083		

26

Doubt session

COULD DO 10 MIN.

Teacher: Now, let us take a few minutes to clear any doubts you may have. If you have questions about the worksheet or division, feel free to ask.

Teacher: Raise your hand if you need help with any problems. I will come to you and explain it step by step.

Teacher: Remember, division can be tricky, but breaking it down step by step makes it easier

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

SHOULD DO 05 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 job, everyone. See you in the next class. Have a wonderful day ahead.

Differentiated Activities

110 km/hr

Create a division puzzle. Write a division problem where the quotient and remainder are hidden. Provide clues about the division (e.g., the dividend is

312 and the divisor is 8) and ask your partner to find the quotient and remainder using the clues.

80 km/hr

Imagine you are dividing a total of ₹4,500 among 15 people for a charity event. How much will each person receive? Now, create another problem involving division in a real-life context, such as sharing objects or splitting tasks and ask your classmate to solve it.

40 km/hr

Write a short story about a person dividing an amount of money, food or time and then solve the division problem within the context of the story. Share your story with a partner and have them solve the division problem based on your narrative.

Home Task

Practise the concepts discussed in this chapter.

Learning Outcomes

The students will:

Physical Development	• accurately divide objects into equal groups and complete hands-on division activities.
Socio-Emotional and Ethical Development	• collaborate respectfully with peers and demonstrate teamwork during division tasks.
Cognitive Development	• solve division problems, estimate quotients and apply division in real-life scenarios.
Language and Literacy Development	• explain division concepts verbally and in writing using appropriate terminology like dividend, divisor, quotient, etc.
Aesthetic and Cultural Development	• create division models and engage in projects related to real-life division situations.
Positive Learning Habits	• practise division strategies, complete tasks independently, self-assess understanding and refine problem-solving skills through reflection.

Starry Knights

Do you think the learners imbibe human values taught through the integrated approach to learning? How did you ensure a take-away that learners would glasly practise at least one human value?

Reward yourself with a STAR.