Dividing 2- to 3-Digit Numbers by 1-Digit Numbers without Remainder

I. Learning Objectives

Cognitive:	Divide 2- to 3-digit numbers by 1-digit numbers without remainder
Psychomotor:	Write the expanded form of given numbers
Affective:	Share one's blessings to others

II. Learning Content

Skill:	Dividing 2- to 3-digit numbers by 1- to 2-digit numbers without remainder
Reference:	BEC PELC II E 1.1.1.2
Materials:	flash cards, number cards, show me boards
Value:	Sharing

III. Learning Experiences

A. Preparatory Activities

1. **Drill:** Division Facts

The teacher writes the following division sentence on the board.

$\underline{15} \div \underline{3} = \underline{5}$

Ask volunteers to identity the dividend, divisor and quotient
The teacher calls on 5 players.
She flashes the cards with division sentence on them. One of the numbers in the sentence is underlined.
Ask the pupils to identify the underlined numbers.

$\underline{18} \div 6 = 3$

Dividend

The first player to get the most number of correct answer wins the game.

2. **Review** "Rename Me"

Rename the following numbers:

$35 = 30 + 5$
$186 = 100 + 80 + 6$
$47 = 40 + 7$
$96 = 90 + 6$
$458 = 400 + 50 + 8$
$293 = 200 + 90 + 3$

The teacher groups the pupil into Lbs.
Then she gives a number.
The pupils write the expanded form of the number on the board.
The LB with the most number of correct answer wins the game.

3. Motivation

Noli has some bananas. He wants to share 10 bananas equally to his 5 friends. How many bananas will he give to each of them?

How many bananas does Noli want to share with his 5 friends?
Do you also share your blessings to your friends?

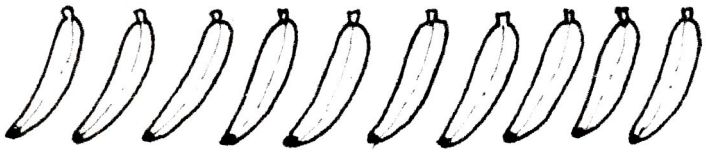
B. Development Activities

1. Presentation

a. Presentation

a. Acting out the problem.

Call on 6 pupils. Ask one pupil to act as Noli, and the rest, his 5 friends. Let Noli distribute the 10 bananas equality to his friends.



How many bananas are there in all? 10
How many friends will these be distributed? 5
Write 10 ÷ 5 = 2
How many will each friend get?

b. Divisions as repeated subtraction

10 ÷ 5 means how many 5s are there in 10? Let us subtract 5 from 10 until we get 0.

10			How many times did we subtract
- 5	-	1	five from ten? 2
5			
- 5	-	1	
0			

Division is repeated subtraction.

c. Present another problem.

A department store had 336 pairs of socks. The socks were sold in packages of 3 pairs. How many packages were there?

How many pairs of socks has the department store?
How were the socks sold?
What operation shall we use to solve the problem?

$3\overline{)336}$ Which is the dividend?

Which is the divisor?

1) Group the pupils into 2. Let them solve the problem in 2 ways.

Group 1

```
  100 + 10 + 2
3 | 300 + 30 + 6      = 112
  - 300
  ------------
      0   30
        - 30
        ------
          0   6
            - 6
            ---
            0
```

Steps

1. Divide the hundreds.
2. Divide the tens
3. Divide the ones.

Group 2

```
    ____
3 | 336
  - 3
  ---
    3
  - 3
  ---
    0 6
  - 6
  ---
    0
```

Steps

1. Divide 3 by 3.
   3 ÷ 3 = 1
   Write 1 in the hundreds place.
2. Multiply 1 by 3.
   1 x 3 = 3
3. Subtract 3 from 3.
   3 – 3 = 0
4. Bring down 3.
   3 ÷ 3 = 1
5. Multiply 1 by 3
   1 x 3 = 3
6. Subtract 3 from 3.
   3 – 3 = 0
7. Bring down 6.
   6 ÷ 3 = 2
8. 2 x 3 = 6
9. 6 – 6 = 0

Did we get the same answer even if we used 2 ways of solving the problem?

Let's check if the quotient is correct.
How do we check if our answer is correct?

112	-	quotient	
x 3	-	divisor	Multiply the quotient by the divisor.
336	-	dividend	If the answer is exactly the same as the dividend, the answer is correct.

2) Solve the problem below using the short method.

```
  14
6 | 876     8÷ 6 = 1          27 ÷ 6 = 4
  - 6       1 x 6 = 6         4 x 6 = 24
   27       8 – 6 = 2         27 – 24 = 3
  - 24      2 < 6             3 < 6
    36      Bring down 7      Bring down 6
  - 36
    0
```

36 ÷ 6 = 6
6 x 6 = 36
36 – 36 = 0

2. Guided Practice

Work in triads

Supply the missing numbers in the box.

1. 4) 48

```
 —
 4   (□ x 4)
 8
-8   (□ x 4)
 0
```

2. 8) 96

```
 —
 8   (□ x 8)
16
-16  (□ x 8)
 0
```

3. 6) 318

```
-30  (□ x 6)
 □□
-18  (□ x 6)
 0
```

4. 9) 288

```
-27  (□ x 9)
 18
-18  (□ x 9)
 0
```

3. Generalization

How do we divide 2- to 3- digit numbers by 1 digit number?

To divide 2- to 3-digit numbers by 1 digit number, follow these steps: Divide, multiply, subtract, compare and bring down, until all the digits in the dividend are divided.

C. Application

1. Work in group of four
   Divide. Fill in the ☐ with the correct number. Do this on your drill board.

a. 4) 68
- 4 (4 x 1)
- ☐☐ (4 x 7)
☐

b. 5) 75
- 5 (5 x 1)
25
- ☐☐ (5 x 5)
☐

c. 4) 312
- 28 (4 x 7)
- ☐☐☐ (4 x 8)
☐

d. 3) 234
- 21 (3 x ☐)
24
- 24 (3 x ☐)
0

e. 4) 212
- 20 (4 x ☐)
12
- 12 (4 x ☐)
0

IV. Evaluation

1. Divide pupils into Lbs.
2. Distribute activity cards to the Lbs.
3. Let them solve the division exercises.
4. Ask them to supply the missing numbers in the table. (Dividend, Divisor, Quotient)
5. The first LB to present the table with the correct answer wins the contest.

2) 126	3) 231	6) 294	5) 365	5) 480
6) 66	5) 75	4) 212	6) 198	7) 147

LB1

Dividend	Divisor	Quotient
126	2	62

LB2

Dividend	Divisor	Quotient
365	5	43

V. Assignment

Divide. Then check if the answer is correct.

1) $2\overline{)126}$ 2) $3\overline{)291}$ 3) $5\overline{)365}$

4) $4\overline{)432}$ 5) $6\overline{)294}$