

Meaning of Remainder

I. Learning Objectives

Cognitive:	Divide 2- to 3- digit numbers by 1-digit number with remainder
Psychomotor:	Tell the meaning of remainder
Affective:	Practice the habit of being honest

II. Learning Content

Skills:	Meaning of Remainder Division of 2- to 3-digit numbers with remainder
Reference:	BEC PELC I.E.1.1.1.3
Materials:	textbook, Math kit, 1 bottle can, popsicle stick
Value:	Honesty

III. Learning Experiences

A. Preparatory Activities

- 1. Drill:** Basic multiplication facts
- 2. Review**

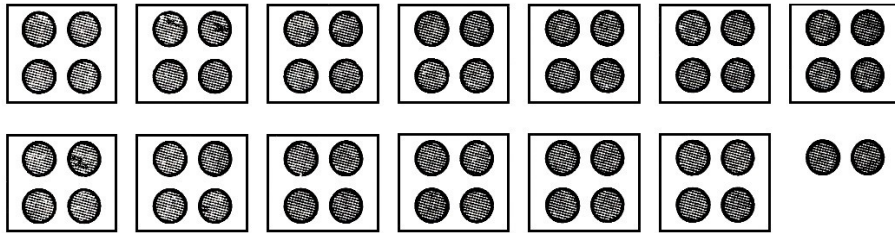
$$\begin{array}{r} 2 \overline{)24} \\ 4 \overline{)96} \\ 7 \overline{)64} \\ 8 \overline{)64} \\ 9 \overline{)63} \\ 4 \overline{)36} \end{array}$$

B. Development Activities

1. Presentation

- Present the story problem.
 - Mr. Golez packed 54 tomatoes into small boxes. If 4 tomatoes can be placed in each box, how many boxes did he fill? How many tomatoes were left out?
 - Ask the children to bring out their counters (stones, popsicle sticks, etc)
Let's show this problem using our countries.
 - How many tomatoes are there? 54
 - How many tomatoes can be placed in a small box? 4
 - How many boxes will be filled?
 -

2) Have the children illustrate the problem using their countries.



13 boxes were filled
 2 tomatoes were not put in the box
 We call 2 as the remainder.

3) Let's solve the problem using the steps in problem solving.

■ Understand

What are given? 54 tomatoes in small boxes
 4 tomatoes in each box
 What is being asked? How many boxes did he fill?
 How many were left out?
 What operation will solve the problem? Division

■ Plan

What equation will represent the problem? $54 \div 4 = N$

■ Solve

Guide the children in solving the problem following the steps:

$$\begin{array}{r} 13 \\ 4 \overline{)54} \\ \underline{4} \\ 14 \\ \underline{-12} \\ 2 \end{array}$$

- Divide: How many 4s are in 5?
- Multiply: $1 \times 4 = 4$
- Subtract: $5 - 4 = 1$
- Bring down 4 beside 1
- How many 4s are in 14?
- Multiply $3 \times 4 = 12$
- Subtract $14 - 12 = 2$

Ask: How many boxes were filled?

■ Look Back

How many tomatoes were not included?
 Does your answer make sense?

b. Present another problem. This time with 3-digit by 1-digit using Polya's method.

Mang Tasyo divided 848 mangoes equally into 6 big basket. How many mangoes were there in each basket?

Divide to find the answer. $6 \overline{)848}$

- What are given?
- What is being asked?
- What operation will solve the problem?
- What equation will solve the problem?

Show how this is done.

<p>1. Divide hundreds $8 \div 6$ Multiply, subtract and compare</p> $\begin{array}{r} 1 \\ 6 \overline{)848} \\ - 6 \\ \hline 2 \end{array}$	<p>2. Bring down the tens. Divide tens ($24 \div 6 = 4$) Multiply ($4 \times 6 = 24$) Subtract and compare.</p> $\begin{array}{r} 14 \\ 6 \overline{)848} \\ - 6 \\ \hline 24 \\ - 24 \\ \hline 8 \end{array}$	<p>3. Bring down the ones. Divide ones $6 \div 8 = 1$ Multiply, subtract/compare</p> $\begin{array}{r} 141 \\ 6 \overline{)848} \\ - 6 \\ \hline 24 \\ - 24 \\ \hline 8 \\ - 6 \swarrow \text{remainder} \\ \hline 2 \end{array}$
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2. Guided Practice

Solve the following number sentences.

1) $2 \overline{)345}$

2) $4 \overline{)87}$

3) $3 \overline{)67}$

4) $4 \overline{)745}$

5) $4 \overline{)914}$

3. Generalization

- How do we divide 3-digit by 1-digit number?
- What is the meaning of remainder?

We divide the hundreds, then the tens and the ones. Then we multiply and subtract. Remainder – is the left-over.

C. Application

Solve the following:

$$1) \quad 3 \overline{)619}$$

$$2) \quad 9 \overline{)813}$$

$$3) \quad 7 \overline{)432}$$

$$4) \quad 5 \overline{)617}$$

$$5) \quad 4 \overline{)914}$$

IV. Evaluation

Divide and write the letters above the quotients to answer these questions. What is another word for left over?

$$R \quad 5 \overline{)23}$$

$$N \quad 9 \overline{)613}$$

$$S \quad 2 \overline{)313}$$

$$A \quad 4 \overline{)217}$$

$$M \quad 6 \overline{)39}$$

$$B \quad 7 \overline{)236}$$

$$E \quad 5 \overline{)62}$$

$$D \quad 3 \overline{)214}$$

$$I \quad 8 \overline{)821}$$

$$\overline{4r3}$$

$$\overline{12r2}$$

$$\overline{6r3}$$

$$\overline{54r1}$$

$$\overline{102r5}$$

$$\overline{68r1}$$

$$\overline{40r4}$$

$$\overline{12r2}$$

$$\overline{4r3}$$

V. Assignment

Divide

$$1) \quad 2 \overline{)126}$$

$$2) \quad 3 \overline{)231}$$

$$3) \quad 4 \overline{)232}$$

$$4) \quad 5 \overline{)365}$$

$$5) \quad 6 \overline{)253}$$