

Solving Word Problems involving Subtraction of Similar Fractions without Regrouping

I. Learning Objectives

- Cognitive:** Solve word problems involving subtraction of similar fractions without regrouping
Psychomotor: Follow directions in solving a word problem
Affective: Show cooperation in solving word problems

II. Learning Content

- Skills:** 1. Solving word problems involving subtraction of similar fractions without regrouping
2. Following given directions in solving word problems
- Reference:** BEC-PELC II.D.3.2
- Materials:** flash cards, word problems written on pieces of paper, learning activity sheets, crayons, strips of paper for pupils
- Value:** Cooperation

III. Learning Experiences

A. Preparatory Activities

1. Drill

Oral drill on subtracting basic subtraction facts using flash cards.

$$\begin{array}{r} 8 \\ -5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ -4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ -6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ -5 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ -2 \\ \hline \end{array}$$

2. Review

Conduct a contest on finding the magic difference using the magic squares. Subtract across and down.

a.

$\frac{11}{20}$	$\frac{4}{20}$	
$\frac{5}{20}$	$\frac{2}{20}$	

b.

$\frac{20}{25}$	$\frac{8}{25}$	
$\frac{9}{25}$	$\frac{4}{25}$	

3. Motivation

Is it important to follow directions correctly? Why? Let us see if you can follow some

directions in order to solve a problem.

- 1) Get a strip of paper.
- 2) Fold it into 4 equal parts.
- 3) Color $\frac{2}{4}$ red and $\frac{1}{4}$ of it green.
- 4) What part of the strip is left uncolored? Write your answer at the back of the colored paper.

B. Developmental Activities

1. Presentation

a. Read and understand well this problem.

Father cut $\frac{2}{3}$ of a piece of wood. He used $\frac{1}{3}$ for covering a hole on the floor and the remaining part for repairing a window. What part did he use for the window?

Help them in the analysis of data by answering some questions.

- 1) What are given in the problem?
- 2) What is asked in the problem?
- 3) What operation will you use?
- 4) Write your computation with label.

b. Read the problem carefully. Answer the questions about it.

Harold and Cito sold $\frac{8}{100}$ kg of old newspapers on Saturday and $\frac{72}{100}$ kg on Sunday. What is the difference in the weight of the newspapers sold on Saturday and Sunday?

Answer the questions below.

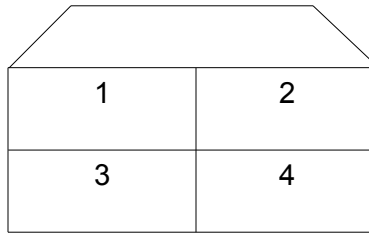
- 1) What is asked in the problem?
- 2) What are the given facts?
- 3) What process will be used?
- 4) Write the mathematical sentence for the problem.
- 5) What is the correct answer?

2. Guided Practice

(At this point, remind the pupils the importance of working together in all activities that will be given to them.)

Write these word problems on pieces of paper cut in rectangular form. Post them on a piece of manila paper cut into a house shape, hiding the written problems. Ask each group to pick up one problem and cooperatively work on it following the steps in problem solving. Have one member explain their answers.

<p>Problem #1 A gardener sold $\frac{1}{4}$ sack out of $\frac{3}{4}$ potatoes, what fractional part of the potatoes was left?</p>	<p>Problem #2 Lita mixed $\frac{6}{10}$ litre of fruit juice with $\frac{8}{10}$ litre of water. How much more water was used than fruit juice?</p>
<p>Problem #3 Janice bought $\frac{2}{8}$ metre of green ribbon and $\frac{5}{8}$ metre of blue ribbon for a key holder. How much more blue ribbon did she buy than green ribbon?</p>	<p>Problem #4 Cris biked $\frac{3}{5}$ km on Saturday and $\frac{1}{5}$ km on Sunday. What is the difference of the distance Cris covered?</p>



Hidden problems written at the back

3. Generalization

How do we solve word problems?

To solve word problems, identify the given facts, what is asked and determine the operation to be used, make the number sentence, then find the correct answer by doing the necessary computations.

C. Application

Read the problem and solve on your paper.

The girls used $\frac{3}{4}$ kilogram of cabbage and $\frac{2}{4}$ kilogram of lettuce in their cooking class. How many more kilogram of cabbage than lettuce was used?

IV. Evaluation

Read and solve the problems. Follow the steps in problem solving.

1. Aling Mila bought $\frac{3}{4}$ kilogram of grapes. She gave $\frac{2}{4}$ kilogram to her mother. How many kilogram of grapes was left to her?
2. Lando cut a bamboo stick which was $\frac{3}{4}$ metre long. He used $\frac{1}{4}$ metre for a garden peg. How many metre of bamboo stick was left?
3. Mother bought $\frac{6}{10}$ metre of ribbon. She used $\frac{3}{10}$ metre for her gift to father. What part of the ribbon was left?
4. Marco has $\frac{6}{8}$ metre of illustration board. He used $\frac{4}{8}$ of it for his drawing. What part of his illustration board was left?
5. Father bought $\frac{7}{12}$ litre of gasoline. He used $\frac{5}{12}$ litre in going to a nearby town. How many litre of gasoline was left unused?
6. Aunt Mary cooked $\frac{8}{10}$ kilogram of spaghetti. She gave $\frac{4}{10}$ kilogram to her neighbors. How much spaghetti was left for her children?
7. Mrs. Santos bought $8\frac{10}{20}$ metres of cloth. She used $6\frac{7}{20}$ metres for bed sheet and pillowcases. How many metres of cloth were left?
8. In a buko pie eating contest held during a school fair, Dale ate $\frac{6}{12}$ of a pie while Amy ate $\frac{3}{12}$ of the pie. How much more did Dale eat than Amy?
9. The scouts were assigned to plant a garden plot divided into 6 equal parts. They finished planting $\frac{4}{6}$ of the area. What part of the plot was not planted?

V. Assignment

Read and solve following the steps in problem solving.

1. Aling Charing had $\frac{7}{8}$ litre of coconut vinegar. She used $\frac{1}{8}$ litre for adobo and the rest for

paksiw. How many litre of coconut vinegar was left for her paksiw?

2. Roel and Mario removed weeds from their lawn. Roel finished weeding $\frac{1}{4}$ of the lawn while Mario finished $\frac{2}{4}$. What part of the lawn was left unweeded?

Write a story problem that involves subtraction of similar fractions. Be ready to dramatize the problem