MULTIPLICATION OF DECIMAL FRACTIONS BY WHOLE NUMBERS

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Subject

Mathematics

Prepared By

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Grade Level

4

Overview

This lesson plan covers teaching content for;

1. Multiplication of decimal fractions by whole numbers
2. Multiplication of decimal by whole numbers

Objectives

Students should be able to;

1. Multiply decimal fractions by whole numbers.
2. Multiply decimals by whole numbers.

Activity Starter/Instruction

1. Draw a number line on the board and calibrate it with decimal numbers.
2. Practice moving the decimal point left and right.
3. Ask pupils what happens when we move the decimal comma left i.e. the number becomes smaller, and if we move it to the right i.e. the number becomes bigger

Teacher Guide

Day 1/ Lesson 1: 15 Mins

1. Demonstrate that when we multiply decimals by multiples of 10 i.e. 10, 20, 30, etc., we can break up our work into two stages.
2. First, break the whole number into units of tens, hundreds or thousands. E.g. 2,956 × 50 becomes 2,956 × 10 × 5.
3. Multiplying 2, 956 shifts the comma one place back so that 2,956 becomes 29,56.
4. Now multiply 29,56 by 5.

Guided Practice

Day 2/ Lesson 2: 15 Mins

1. Continue from the previous lesson, and shows the pupils how to use short multiplication to multiply decimals by double-digit numbers.
2. Explain that multiplication of decimals by double digit numbers can be done in the

Guided Practice

Day 3/ Lesson 3: 15 Mins

1. Revise counting forwards and backwards in 10s, starting at any multiple of 10 to 1 000.
2. Then, count forwards and backwards in 10s starting at any other two- or three-digit number.

Materials Required

- Multiplication chart
- Digit cards
- Place value table.

Additional Resources

- https://www.math-only-math.com/multiplying-decim
- https://www.mathgoodies.com/lessons/decimals_par
- https://www.homeschoolmath.net/teaching/d/multip
- https://teach.conceptuamath.com/app/topic/multiply numbers
- https://www.eduplace.com/math/mw/background/5,

Additional Notes

column method by lining up the numbers in terms of place values i.e. tens underneath each other and units underneath each other.
3. Work through examples. We multiply from right to left starting with the unit of the second number which is multiplied with each value in the decimal number.
4. Remind the pupils again about the carrying rule.

3. Then, practice multiplying mentally by 10, for example 34 × 10; 45 × 10.
4. Ask the pupils if they can see any pattern in the answers.
5. Make sure that they can see that the digits move one place to the left in multiplication (the units' digit becomes the tens' digit, the tens' digit become the hundreds' digit and so on).

Guided Practice

Day 4/ Lesson 4: 15 Mins

1. Revise multiplication of decimals by powers of 10, multiples of 10 and whole numbers.
2. Give pupils a few examples from real life which requires the use of decimals e.g. money transactions.
3. Give a few simple verbal examples and ask pupils to calculate the answers mentally. For example, I buy 4 pencils at N0.25, how much did I pay.

Assessment Activity

Check that pupils can multiply decimals by multiples of 10 such as 20, 30, 40, etc. by breaking apart the multiples.

Assessment Activity

Assess whether pupils are able to:

1. Recognize the mathematical processes used to obtain an answer
2. Read and understand word problems.

Summary

1. Ask for volunteers to share their answers to the problems assigned.
2. As the problems are reviewed in front of the class, have the students check their answers for accuracy.