

DAILY LESSON PLAN

Math GRADE:4

(NO.11/13)

INTERNATIONAL DAILY LESSON PLAN

Unit 3: Fractions.

Date: _____

Topic: Multiplying Improper Fractions by Improper Fractions.

Year Level: 4

Key Learning Area: Improper fractions, Multiplication,
word problems, cross out, common multiples

Outcomes:

- Students will be able to multiply the two improper fractions through visual pictures.
- Students will be able to multiply the two improper fractions in numerical form.
- Students will be able to apply the multiplication of fraction in real life situations.

Lesson Structure:

Time	Introduction (Set):	Teaching Approaches
10 min.	Teacher will recall the previous lecture with the students. Tell your students that we know that multiplication is repeated addition . So, multiplying	Multiplication Revision: Teacher will recall simple 2-digit numbers multiplications with the students. Solve

<p>the two fractions is equivalent to adding the two fractions.</p> <p>Fractional Models:</p> <p>Students will more learn through physical fun activities rather than just sitting and listening the lecture. Teacher will provide or demonstrate the multiplying the two improper fraction through Lego blocks or cut out fractional models.</p> <p>After that show the same examples in numerical form.</p> <div data-bbox="505 724 816 940" data-label="Equation-Block"> $\frac{3}{2} \times \frac{4}{3} = \frac{12}{6} = 2$ </div>	<p>some of the questions on n the board. Ask some questions about multiplicative tables too.</p> <p>Multiplication of two Improper Fraction through Models:</p> <p>Teacher will demonstrate the example of multiplication of two improper fractions.</p> <p>Visualize the multiplication of a fraction through <i>LEGO Blocks</i> or simply just draw the fractional pictures on the board as:</p> <div data-bbox="1062 1073 1360 1388" data-label="Figure"> </div>
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LESSON STRUCTURE:

Time	Main Content:	Teaching Approaches
25 min.	<p>Method 1:</p> <p>Steps for <i>Direct Multiplication</i> of two Improper Fractions:</p> <p><u>Step 1:</u> Multiply the numerator by the numerator.</p> <p><u>Step 2:</u> Multiply the denominator by the denominator</p> <p><u>Step 3:</u> Simplify the fraction if needed.</p> <p>Method 2:</p> <p><i>Cross out method:</i></p> <p>In this method of multiplication we need to first cross out the common factors and then multiply the remaining fractions together as described above.</p> <p>Teacher will demonstrate the both methods by examples.</p> <p>Then write some related sums on the board and ask the students to solve them on their notebooks.</p> <p>Word Problems:</p> <p>Teacher will introduce the related word problems and encourage the students to think at least 5 of their own such word problems as home assignment.</p> <p>Mind Teasers:</p>	<p>Multiplication Representation:</p> <p>Teacher will prepare a chart for demonstrational purpose. Paste it on the board or in front of your class.</p> <p>Multiply.</p> $\frac{2}{3} \times \frac{9}{4} = \frac{2 \times 9}{3 \times 4} = \frac{18}{12} = 1\frac{6}{12}$ <p>Cross Out Common Factors Method:</p> <p>Enforced the concept that improper fractions are usually bigger numbers so it will be easy if we cross out the common factors first and then multiply the numerators and denominators.</p> <div style="text-align: center;"> 5 8 </div> $\frac{64}{30} \times \frac{25}{8} = \frac{\cancel{64}}{30} \times \frac{25}{\cancel{8}} = \frac{8}{6} \times \frac{5}{1}$ $\frac{\cancel{8}}{6} \times \frac{5}{1} = \frac{4}{3} \times \frac{5}{1}$

<p>Give some mind-teasers referring to the same problems. Challenge the students to come on the board and solve the question:</p> <ul style="list-style-type: none"> • What number is $\frac{10}{4}$ of $\frac{6}{2}$? <p>Once the students get enough practice in the class, encourage students to give an example of a real world situation where they would have to multiply a whole number with the fractions. Ask them how would you explain and how to do it?</p>	$\frac{4}{3} \times \frac{5}{1} = \frac{4 \times 5}{3 \times 1}$ $\frac{4 \times 5}{3 \times 1} = \frac{20}{3}$ <p>As the answer is an improper fraction which can be converted into mixed fraction by dividing. Encourage your students to convert the fraction into improper fraction by themselves.</p> $\frac{20}{3} = 6\frac{2}{3}$
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Time	Conclusion:	Teaching Approaches
5 min.	<ul style="list-style-type: none"> • Students will be able to multiply the two improper fractions through visual pictures. • Students will be able to multiply the two improper fractions in numerical form. • Students will be able to apply the multiplication of fraction in real life situations. 	<p>Review the lesson with students.</p> <p>Ask students, "what did we learn about multiplication of fractions today"?</p> <p>Give enough practice as homework</p> <p>Ask for questions.</p>

Resources:

Board, board marker, Multiplication of fraction real life-related worksheets, Multiplication of two improper fractions worksheets, Incredible Mathematics Grade 4 book, notebooks etc.

Safety Consideration/ Materials

None

Assessment

Related worksheets

Board test

Mind-teasers.

Quiz etc.

Reflection

The students have understood that how to:

- Multiply the two improper fractions through visual pictures.
- Multiply the two improper fractions in numerical form.
- Apply the multiplication of fraction in real life situations.