

# Differentiation: Using Differentiated Support tab in Gr7-Gr9

This guide will show you how to access differentiated support options. Learn how to navigate these features to enhance your math learning experience.

## 1 Click "Differentiated Support"

The screenshot shows the Mathology website interface. At the top, there is a navigation bar with the Mathology logo, a search bar, and links for Home, Favourites, Plan, Analytics, Matific Dashboard, and Help. The user's email address is displayed as ab@mathology.ca. Below the navigation bar, the page title is "Operations with Fractions and Mixed Numbers" and the specific topic is "Multiplying Fractions and Mixed Numbers". A navigation menu below the title includes "ABOUT", "LESSON", "ASSESSMENT", "DIFFERENTIATE", and "PRACTICE". The "DIFFERENTIATE" tab is highlighted with an orange circle. Below the navigation menu, there is a section for "Number" with a "Materials" list: "Pattern Blocks (Optional)", "Practice (PDF) (WORD)", "Practice Answers (PDF) (WORD)", "Assessment (PDF) (WORD)", and "Lesson Slides (PDF) (PowerPoint)". To the right of the materials list, it indicates "LESSON 16" and "GRADE 8". Below the materials list, there are two columns: "INSTRUCTIONS" and "CONSOLIDATION". The "INSTRUCTIONS" column includes a "Pattern Blocks" icon and a "Before (5-10 min)" section with a "Display Slide 1" instruction. The "CONSOLIDATION" column includes a "CONSOLIDATION" heading and a paragraph of text for Part A.


**Number**

**Materials**

- Pattern Blocks (Optional)
- Practice (PDF) (WORD)
- Practice Answers (PDF) (WORD)
- Assessment (PDF) (WORD)
- Lesson Slides (PDF) (PowerPoint)

LESSON 16 GRADE 8

**INSTRUCTIONS**

 Pattern Blocks

**Before (5-10 min)**  
Display **Slide 1**.  
Pose the problem: "How much water does Chris drink on Monday?" Have students work with a partner. Encourage them to use pictures or diagrams. Students may think of multiplication as repeated addition and apply their understanding of adding fractions:  $5 \times \frac{1}{3} = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$ . A sample answer is available on **Slide 2**.

**CONSOLIDATION**

For Part A, have students share how they solved the problem and represented their strategies. For example:

- "Since the problem involves quarters and thirds, I created a rectangle that measures four units horizontally and three units vertically. I shaded three of four columns light blue to show the fraction of students who stream music. Of these students, I shaded two of three rows a darker blue to show the fraction of students who listen to pop music. Six of twelve squares are shaded a darker blue. This shows the fraction of students who belong to both groups."

## 2 Click Possible Misconceptions to find examples and suggestions on what to do

The screenshot shows the Mathology website interface. At the top, there is a navigation bar with the Mathology logo, a search bar, and links for Home, Favourites, Plan, Analytics, Matific Dashboard, Help, and a user profile. Below this is a blue header for the current page: "Operations with Fractions and Mixed Numbers" and "Multiplying Fractions and Mixed Numbers". A navigation menu below the header includes "ABOUT", "LESSON", "ASSESSMENT", "DIFFERENTIATED ..." (which is underlined), and "PRACTICE".

The main content area is titled "Possible Misconceptions". It contains a text box that says: "Student might multiply whole numbers only by whole numbers and fractions only by fractions. For example:" followed by a mathematical calculation:

$$3\frac{1}{2} \times 1\frac{2}{5} = (3 \times 1) + \left(\frac{1}{2} \times \frac{2}{5}\right)$$
$$= 3 + \frac{2}{10}$$
$$= 3\frac{1}{5}$$

An orange circle highlights the text "For example:". Below the calculation is a section titled "What to Do" with the following text: "Ask student to estimate  $3\frac{1}{2} \times 1\frac{2}{5}$ . Ask, 'Is your estimate greater than or less than four (or three-and-one-half)?' then 'Is your calculation greater than or less than four (or three-and-one-half)?' Give student time to revise their thinking and resolve this contradiction."

On the right side of the page, there is a vertical sidebar with the text "Professional Learning" and a downward arrow.

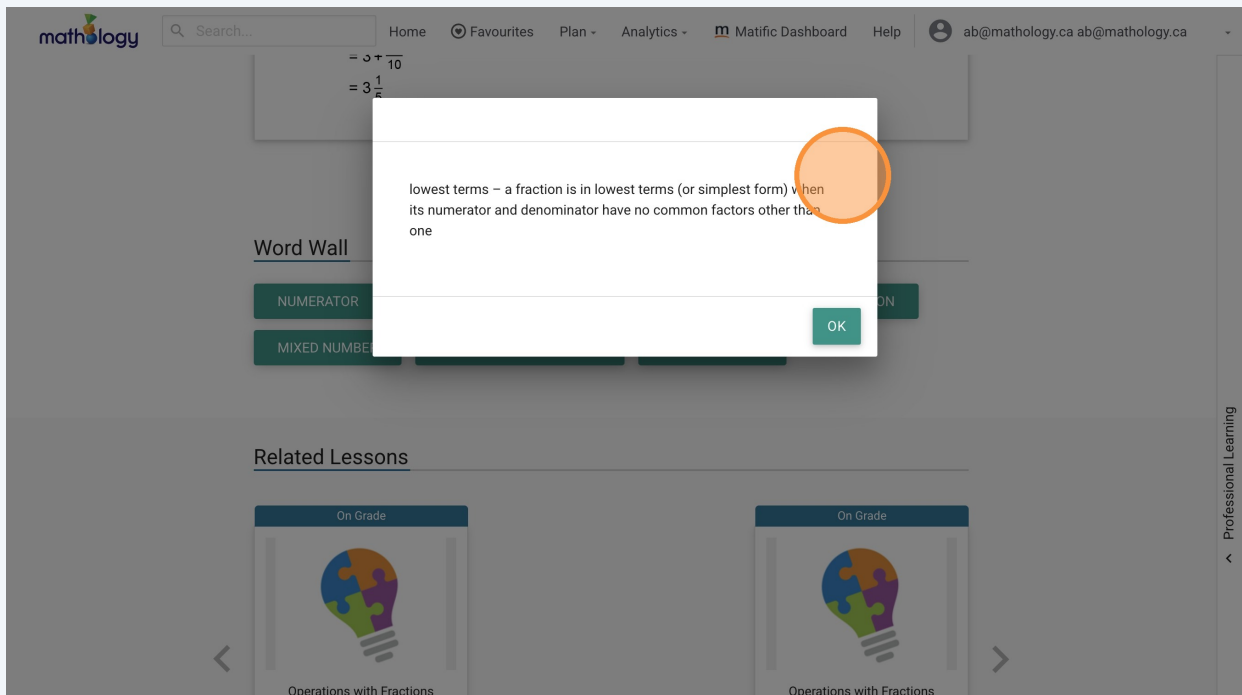
## 3 Click on a word in the Word Wall

The screenshot shows the Mathology website interface, similar to the previous one. The navigation bar and header are the same. The main content area is titled "Word Wall". It features a grid of seven green buttons with white text: "NUMERATOR", "DENOMINATOR", "IMPROPER FRACTION", "PROPER FRACTION", "MIXED NUMBER", "COMMON DENOMINATOR", and "LOWEST TERMS". An orange circle highlights the "LOWEST TERMS" button.

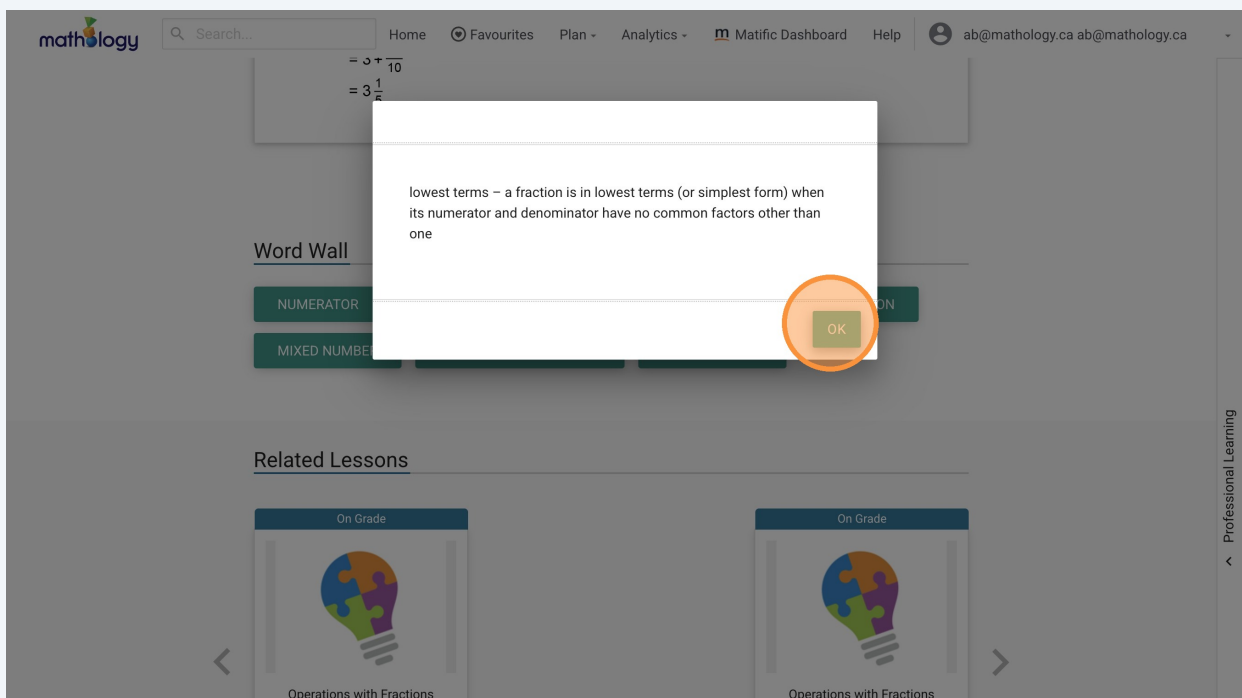
Below the Word Wall is a section titled "Related Lessons". It contains two identical lesson cards. Each card has a blue header with "On Grade", a lightbulb icon made of puzzle pieces, and the title "Operations with Fractions". Navigation arrows are visible on the left and right sides of the lesson cards.

On the right side of the page, there is a vertical sidebar with the text "Professional Learning" and a downward arrow.

4 Use the definitions to make a word wall or copy and use digitally.



5 Click "OK" to close



6

Click "Related Lessons" to quickly find other lessons that are related.

The screenshot displays a digital lesson interface. At the top, there is a search bar. Below it is a section titled "Word Wall" with six teal buttons: "NUMERATOR", "DENOMINATOR", "IMPROPER FRACTION", "PROPER FRACTION", "MIXED NUMBER", "COMMON DENOMINATOR", and "LOWEST TERMS". Below the Word Wall is a "Related Lessons" section. An orange circle highlights the "Related Lessons" header. Two lesson cards are visible, each featuring a lightbulb icon with puzzle pieces. The left card is titled "Operations with Fractions and Mixed Numbers: Dividing Fractions and Mixed Numbers" and the right card is titled "Operations with Fractions and Mixed Numbers: Applying the Order of Operations with Fractions and Mixed Numbers". Navigation arrows are present on the left and right sides of the lesson cards. In the bottom left corner, there is a "Planning Tool (3-4)" button with a checkmark and a small circle containing the number 3. On the right edge of the interface, there is a vertical label "Professional Learning" with a downward arrow.