



Fractions to Decimals

COOK, BAKER, PIPE TRADES, WELDING, CARPENTRY, AUTOMOTIVE SERVICE TECHNICIAN, HEAVY EQUIPMENT TECHNICIAN, AGRICULTURE EQUIPMENT TECHNICIAN, WIND TURBINE TECHNICIAN, PARTS TECHNICIAN

GRADES	LEARNING OBJECTIVE	CONCEPTS
<ul style="list-style-type: none">Grade 7	Students will learn and practice converting decimals to fractions by measuring lengths around the classroom in decimals and then converting those measurements to fractions using the measurement tools provided to check their conversion.	<ul style="list-style-type: none">FractionsDecimalsWhole numbersMeasurementImperialMetricConversions

Curriculum Connections

GRADE 7 MATH

Number: Develop number sense.

- 4. Demonstrate an understanding of the relationship between positive terminating decimals and positive fractions and between positive repeating decimals and positive fractions.



Description

In this lesson, students will practice converting decimals to fractions using measurement tools commonly utilized by tradespeople. By measuring various lengths around the classroom and converting the measurements, students will understand the crucial skill of unit conversion and its significance.

Accurate conversions are vital for tradespeople as they ensure precise measurements for cutting materials, determining proper torque values for fasteners, safety specification on vehicles, and adhering to project specifications.

TIME

- 50–60 minutes

MATERIALS

- Toolbox containing the following measurement tools: tape measure (SI and metric), tire pressure gauge, tire depth gauge, digital caliper, feeler gauge, and torque wrench
- Paper

Procedure

STEPS

1. Introduction (10 minutes)

- Begin the lesson by reviewing the concept of decimals and fractions. Ensure that students understand the relationship between decimals and fractions (e.g., $0.5 = 1/2$, $0.75 = 3/4$, etc.).
- Talk about the importance of accurate measurements and conversions in various real-life scenarios, such as DIY projects, engineering, and mechanics.

2. Measuring length around the classroom (20 minutes)

- Divide the students into pairs or small groups and provide each group with a tape measure (SI and metric) from the toolbox.
- Assign specific objects or distances within the classroom for each group to measure. For example, they could measure the length of a table, the width of the whiteboard, the height of a door, etc.
- Instruct the students to take accurate measurements in decimals using the tape measure in metric and record their findings on paper.



3. Converting decimals to fractions (20 minutes)

- a. After completing the measurements, ask the students to convert their decimal measurements to fractions. Encourage them to discuss their thought process and reasoning within their groups.

4. Checking conversions with measurement tools (10 minutes)

- a. Once students have completed the conversions, ask each group to choose one measurement they converted to a fraction.
- b. Depending on the length of the item or object students measured use a different tool, if possible, to measure it using fractions. This might be the SI side of the tape measures, for instance.
- c. Compare measurements and check accuracy of conversions.
- d. Encourage students to discuss any discrepancies and understand the importance of precise measurements.

5. Conclusion (5 minutes)

- a. Summarize the main points of the lesson, emphasizing the importance of accurate measurements and conversions in everyday life.
- b. Encourage students to practice converting decimals to fractions using the measurement tools provided in the toolbox and in other real-life scenarios.

Contributors

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