Lesson 8: Divide to Multiply Non-unit Fractions

Standards Alignments

Addressing   5.NF.B, 5.NF.B.4, 5.NF.B.4.a, 5.OA.A.2

Teacher-facing Learning Goals

- Connect division to multiplication of a whole number by a non-unit fraction.

Student-facing Learning Goals

- Let's solve problems about multiplying whole numbers by fractions.

Lesson Purpose

The purpose of this lesson is for students to represent and solve problems involving a non-unit fraction.

In this lesson, students to make sense of the product of a whole number and a non-unit fraction. Students relate the product of a whole number and a non-unit fraction to the product of a whole number and a unit fraction. They will have more opportunities to multiply a whole number by a fraction in the next section, systematically using the idea of area. This lesson continues to focus on the relationship between multiplication and division and encourages students to solve and interpret the problems in ways that make sense to them.

This lesson has a Student Section Summary.

Access for:

♿ Students with Disabilities

- Engagement (Activity 2)

Instructional Routines

MLR2 Collect and Display (Activity 2), True or False (Warm-up)

Required Preparation

Gather the chart from the synthesis of a previous lesson that describes what students know and wonder about the relationship between multiplication and division.

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

If you were to teach this lesson again what would you do the same? What would you change?

Cool-down (to be completed at the end of the lesson)   🕐   5 min

Two Thirds

Standards Alignments

Addressing   5.NF.B.4

Student-facing Task Statement

Find the value of each expression. Explain or show your reasoning.

1. $\frac{1}{3} \times 4$
2. $\frac{2}{3} \times 4$

Student Responses

1. $\frac{4}{3}$ or equivalent: Sample response: $4 \div 3 = \frac{4}{3}$

2. $\frac{8}{3}$ or equivalent: Sample response: I doubled the answer to the first question.