MA.3.FR.1.3

Overarching Standard: MA.3.FR.1 *Understand fractions as numbers and represent fractions.*

Benchmark of Focus

MA.3.FR.1.3: Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form.

Example: The fraction $\frac{4}{3}$ written in word form is four-thirds and in numeral-word form is 4 *thirds*.

Benchmark Clarifications:

Clarification 1: Instruction focuses on making connections to reading and writing numbers to develop theunderstanding that fractions are numbers and to support algebraic thinking in later grades.

Clarification 2: Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.

Related Benchmark/Horizontal Alignment
- MA.3.FR.1.1
- MA.3.FR.1.2
- MA.3.FR.2.1

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.2.NSO.1.1	MA.4.FR.1.1

Purpose and Instructional Strategies
The purpose of this benchmark is for students to describe fractions in different ways.
- This benchmark builds precise vocabulary for describing fractions. When students describe $\frac{4}{3}$ as 4 thirds, they build understanding that the fraction represents 4 parts that are each one-third in size (MTR.2.1).
- It is also the expectation of this benchmark that students represent fractions greater than one as mixed numbers in word and numeral-word form (MTR.2.1).
- During instruction, teachers should model and expect precise vocabulary from students to describe fractions (MTR.4.1).

Common Misconceptions or Errors
- Students can misinterpret fractions as two numbers that are being compared (e.g., reading "1 over 2" instead of one-half). The use of precise vocabulary helps them understand that a fraction is a representation of one number.
- Students can misinterpret that a fraction always models part of one whole. Exceptions to this misconception are fractions greater than one or fractions representing on number lines and in sets of objects.

Strategies to Support Tiered Instruction
- Instruction includes opportunities for practice in naming fractions correctly in multiple ways. Students use a chart to correctly name fractions. To increase appropriate terminology for naming fractions, students use visual representations with the naming of the fractional parts, as well as build fractions with models as well as number lines.

	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{5}{4}$
	1 *fourth*	2 *fourths*	3 *fourths*	4 *fourths*	5 *fourths*
	One-fourth	Two-fourths	Three-fourths	Four-fourths	Five-fourths
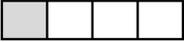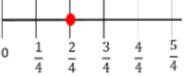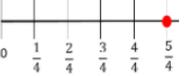
  - For example. Students model or build $\frac{3}{4}$.

    - Teacher asks, "How can we describe this fraction model?" while guiding students to the understanding that $\frac{3}{4}$ is 3 *fourths* or 3 of the $\frac{1}{4}$ pieces. The use of precise vocabulary helps them understand that the same number can be represented by different visual models and different verbal expressions.
- Instruction includes opportunities to practice naming fractions correctly in multiple ways with concrete materials and models.
  - For example, students partition a shape or paper into halves. The teacher asks "What do you notice about the pieces? What do we call each piece? How can we write what one piece of the shape is worth with a fraction?" Instruction involves the vocabulary of numerator and denominator. Students are prompted to use the language of one half and then connect that to the standard form. The use of precise vocabulary helps students understand that a fraction is a representation of one number.

Questions to ask students:

Ask students how to read the fraction $\frac{4}{6}$.

- *Sample answer that indicates understanding:* students say "four-sixths."
- *Sample answer that indicates partial understanding or a misconception:* students say "six-fourths" or "four sixes."

Ask students to write the fraction three-halves in standard form.

- *Sample answer that indicates understanding:* students write $\frac{3}{2}$.
- *Sample answer that indicates partial understanding or a misconception:* students write $\frac{2}{3}$ or $3\frac{1}{2}$.

Ask students how to represent $\frac{5}{4}$ as a mixed number in word form and numeral word form.

- *Sample answer that indicates understanding:* students interpret $\frac{5}{4}$ as 1 ¼ and write *one and one-fourth* and *1 whole and 1 fourth*.
- *Sample answer that indicates partial understanding or a misconception:* students write *five-fourths* and *5 fourths* rather than a mixed number, or students write *five and one-fourth* and *5 wholes and 1 fourth*.

Instructional Tasks
Instructional Task 1

Part A. Reynaldo says that the fraction $\frac{8}{7}$ is written as 8 *sevenths*. Jonathon says that the fraction $\frac{8}{7}$ is

written as 7 *eighths*. Who is correct?

Part B. What is another way to represent $\frac{8}{7}$? Draw a model or write an equation.

Instructional Items
Instructional Item 1

Select all the ways to represent $\frac{8}{3}$.

  a. *Eight thirds*
  b. *8 thirds*
  c. *3 eighths*
  d. *Two and two thirds*
  e. *Three and two thirds*

Achievement Level Descriptors

Benchmark	Context	Assessment Limits
MA.3.FR.1.3 Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form. Example: The fraction $\frac{4}{3}$. written in word form is four-thirds and in numeral-word form is 4 *thirds* Clarification 1: Instruction focuses on making connections to reading and writing numbers to develop the understanding that fractions are numbers and to support algebraic thinking in later grades. Clarification 2: Denominators are limited to 2, 3, 4, 5, 6, 8, 10 and 12.	Mathematical	N/A

ALD 2	ALD 3	ALD 4	ALD 5
reads and writes fractions up to one (where the denominator is 2, 3, 4), using standard form, numeral-word form, or word form.	reads and writes fractions up to one (with denominators of 2 to 6, 8, and 10), using standard form, numeral-word form, and word form	reads and writes fractions, including fractions greater than one, using standard form, numeral-word form, and word form.	reads, writes, and identifies errors in reading or writing fractions, including fractions greater than one, using standard form, numeral-word form, and word form

Additional Resources:

[CPALMS Resources](#)

Resources/Tasks to Support Your Child at Home:

Find fractions in magazines or recipes and have your child read the fraction aloud and then write it in word form and numeral-word form.

When cooking, involve your child in helping with reading a recipe using fractions and mixed numbers. Have them represent mixed numbers as fractions greater than one and then write them in word form and numeral-word form. (For example: 1 ¼ cup of flour could be represented as $\frac{5}{4}$ cups of flour and written as *five-fourths* and *5 fourths*).

Khan Academy: [Recognize fractions greater than one](#)

LearnZillion Video: [Write fractions greater than one as mixed numbers](#) (NOTE: Improper fractions are called "fractions greater than one")