



Common Core Math Newsletter

4th Grade Unit 4: Fractions and Decimals

In this unit, students will extend their understanding of fractions and develop their understanding of decimal notation and how it relates to fractions.

Standards

4.NF.4

- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number
- Understand a fraction a/b as a multiple of $1/b$ (e.g. use a visual fraction model to represent $5/4$ as the product of $5 \times 1/4$ and recording the conclusion by the equation $5/4 = 5 \times 1/4$)
- Understand a multiple of a/b as a multiple of $1/b$ and use this understanding to multiply a fraction by a whole number (e.g. use a visual model to express $3 \times 2/5$ as $6 \times 1/5$ recognizing this product as $6/5$)
- Solve word problems involving multiplication of a fraction by a whole number
- Use visual fraction models and equations to represent word problems involving multiplication of a fraction by a whole number (e.g. Each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between which two whole numbers does the answer lie?)

4.NF.7

- Understand decimal notation for fractions
- Compare decimal fractions
- Compare two decimals to hundredths by reasoning about their size
- Recognize that comparisons are valid only when the two decimals refer to the same whole
- Record the results of comparisons with symbols ($<$, $>$, $=$)
- Justify conclusions (e.g. visual model)

4.MD.2

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
- Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money
- Use the four operations to solve problems involving simple fractions or decimals
- Use the four operations to solve problems that require expressing measurements given in a larger unit in terms of a smaller unit
- Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale

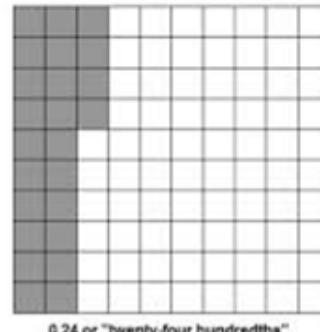
4th Grade Common Core Math

Unit 4: Fractions and Decimals

Vocabulary

mixed number	a number that is made up of a whole number and a fraction (e.g. $1\frac{1}{4}$)
improper fraction	a fraction whose numerator is larger than the denominator (e.g. $\frac{5}{3}$)
decimal and fraction notation	twenty-four hundredths in decimal notation = 0.24 twenty-four hundredths in fraction = $24/100$
visual model	

$$0.24 = 24/100 =$$



0.24 or "twenty-four hundredths"

Additional Resources

IXL.com Topics:

- Multiplying Fractions
- Decimals
- Add & Subtract Fractions with Like Denominators
- Add & Subtract Fractions with Unlike Denominators
- Data & Graphs (Line Plots)

LearnZillion.com Videos:

- <https://learnzillion.com/lessonsets/293-understand-a-fraction-a-b-as-a-multiple-of-1-b-and-solve-word-problems-involving-multiplication-of-a-fraction-by-a-whole-number>
 - Quick Code LZ1430
- <https://learnzillion.com/lessonsets/672-compare-two-decimals-to-hundredths>
 - Quick Code LZ3354
- <https://learnzillion.com/lessonsets/672-compare-two-decimals-to-hundredths>
 - Quick Code LZ2563

Be sure to look to the left of the video to see other lessons on the standard.