

FAMILY MATH

Applications of Decimals

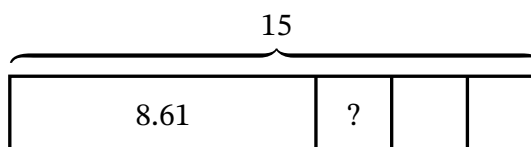
Dear Family,

Your student is applying their understanding of decimal numbers in different ways. First, they convert metric and customary measurements involving decimals. Students convert measurements from larger units to smaller units and from smaller units to larger units. Then, they interpret and evaluate expressions involving decimals. Students learn that comparing two expressions by using a less than or greater than sign is called an inequality because the two expressions are not equal. Finally, students create and solve real-world problems. They use their understanding of decimal place value, relationships between decimals and fractions, and computation with decimals, fractions, and whole numbers.

Key Term

inequality

The difference between 15 and 8.61, divided by 3



$$\begin{aligned} 3.5 \text{ gal} &= 3.5 \times 1 \text{ gal} \\ &= 3.5 \times 4 \text{ qt} \\ &= 14 \text{ qt} \end{aligned}$$

When students convert a measurement from a larger unit to a smaller unit, they multiply by a whole number. When they convert a measurement from a smaller unit to a larger unit, they multiply by a fraction.

Expression: $(15 - 8.61) \div 3$

Value of expression: 2.13

Students draw tape diagrams to make sense of the relationships between numbers in an expression, especially how numbers are grouped.

$$1.3 + (4 \times 0.75)$$

A notebook costs \$1.30 and an eraser costs \$0.75. How much does it cost to buy 1 notebook and 4 erasers?

Students write a story problem to match a given expression.

At-Home Activity

Unit Conversion

Help your student convert measurements, such as length, capacity, and weight.

- “The bag of rice weighs 125 grams. What is the weight of the rice in kilograms? Milligrams?” ($125 \text{ g} = 0.125 \text{ kg} = 125,000 \text{ mg}$)
 - 1 kilogram = 1,000 grams
 - 1 gram = 1,000 milligrams
- “Riley runs the 100-meter dash. How far does Riley run in centimeters?” ($100 \text{ m} = 10,000 \text{ cm}$)
 - 1 meter = 100 centimeters
- “How many quarts are in 2 gallons of milk?” ($2 \text{ gal} = 8 \text{ qt}$)
 - 1 gallon = 4 quarts