



This is a resource from CPALMS (www.cpalms.org) where all educators go for bright ideas!
Resource ID#: 121882

Primary Type: Tutorial

Direct Link: <https://youtube.com/embed/NtJy8uQVN7w>

Pre-Algebra - Multiplying Negative Numbers

When number systems were expanded to include negative numbers, rules had to be formulated so that multiplication would be consistent regardless of the sign of the operands.

General Information

Subject(s): Mathematics

Grade Level(s): 7

Intended Audience: [Educators](#), [Students](#)

Suggested Technology: Internet Connection

Instructional Time: 8 Minute(s)

Keywords: positive integers, negative integer, operands, multiplicative identity, commutative property, distributive property

Instructional Component Type(s): [Tutorial](#)

Resource Collection: Mathematics - Grades 6-8 Existing Student Tutorials

Source and Access Information

Contributed by: Rebecca Lee

Name of Author/Source: Goldman Charitable Foundation in partnership with the University of Central Florida

District/Organization of Contributor(s): Orange

Access Privileges: Public

License: [CPALMS License - no distribution - non commercial](#)

Aligned Standards

Name	Description
MAFS.7.NS.1.2:	<p>Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <ol style="list-style-type: none">Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.Apply properties of operations as strategies to multiply and divide rational numbers.Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

Clarifications:**Fluency Expectations or Examples of Culminating Standards**

Adding, subtracting, multiplying, and dividing rational numbers is the culmination of numerical work with the four basic operations. The number system will continue to develop in grade 8, expanding to become the real numbers by the introduction of irrational numbers, and will develop further in high school, expanding to become the complex numbers with the introduction of imaginary numbers. Because there are no specific standards for rational number arithmetic in later grades and because so much other work in grade 7 depends on rational number arithmetic, fluency with rational number arithmetic should be the goal in grade 7.

Particular alignment to:**MAFS.7.NS.1.2a:**

a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.