

Do Now: Answer the following questions.

1. In English, what does it mean to "commute?"
2. In English, what does it mean to "associate?"

Sep 27-7:27 AM

Commute means to change locations.

Associate means to group together.

Sep 21-12:11 PM

2.1 Properties and Operations

7.NS
7.EE

- SWBAT add and multiply integers using properties.
- SWBAT create, evaluate, and simplify algebraic expressions involving variables.

Calculators: No

Sep 18-9:34 AM

Commutative Property of Addition

Words: In a sum, you can add the numbers in any order.

Numbers: $4 + 5 = 5 + 4$

Algebra: $a + b = b + a$

Sep 27-7:28 AM

Commutative Property of Multiplication

Words: In a product, you can multiply the numbers in any order.

Numbers: $4 * 5 = 5 * 4$

Algebra: $a * b = b * a$

Sep 18-8:38 AM

Associative Property of Addition

Words: Changing the grouping of the numbers in a sum doesn't change the sum.

Numbers: $(9 + 6) + 2 = 9 + (6 + 2)$

Algebra: $(a + b) + c = a + (b + c)$

Sep 27-7:28 AM

Associative Property of Multiplication

Words: Changing the grouping of the numbers in a product doesn't change the product.

Numbers: $(9 * 6) * 2 = 9 * (6 * 2)$

Algebra: $(a * b) * c = a * (b * c)$

Sep 18-8:40 AM

You buy a portable CD player for \$48, rechargeable batteries with charger for \$25, and a CD case for \$12. Find the total cost.

$$(48+25)+12$$

$$(25+12)+48$$

$$(48+25+12)$$

$$(48+12)+25$$

60

\$85

Sep 22-8:09 AM

During the summer, you work 5 hours a day as a lifeguard at a beach and earn \$9 each hour. How much money do you earn during a 6-day work week? \$270

$$5(9)(6)$$

45(6)

$$5(6)(9)$$

30(9)

270

$$9(5)(6)$$

Sep 22-8:34 AM

Evaluate $4xy$, when $x = -7$ and $y = 25$

$$4(-7)(25)$$

$$4(25)(-7)$$

-700

Sep 22-8:10 AM

Evaluate $23 * 5c^2$, when $c = -2$

$$23(5)(-2^2)$$

$-2(-2)$

$$23(5)(4)$$

$$23(20)$$

460

Sep 22-8:10 AM

Simplify the expression:

a.) $x + 31 + 67$

$x + 98$

b.) $-4.01(8y)$

$$4.01 \times 8 = 32.08$$

$-4.01(8)(y)$

$-32.08y$

Sep 27-7:48 AM

Simplify the expression:

a.) $17 + k + (-53)$ b.) $32r(-6)$

Handwritten work:

For (a): $17 + k - 53 = -36 + k$ (circled), $k + (-36)$ (circled), $k - 36$ (circled). A vertical calculation shows $17 - 53 = -36$.

For (b): $32(r)(-6) = -192r$ (circled), $-192 \cdot r$, $-192(r)$. A vertical calculation shows $32 \times 6 = 192$.

Sep 27-7:48 AM

Identity Property of Addition *add-it-ive*

Words: The sum of a number and the additive identity (0) is the number.

Numbers: $-6 + 0 = -6$

Algebra: $x + 0 = x$

Sep 27-7:50 AM

Identity Property of Multiplication

Words: The product of a number and the additive identity, 1, is the number.

Numbers: $-6 * 1 = -6$

Algebra: $x * 1 = x$

Sep 18-8:46 AM

Statement	Property Illustrated
$(-5)(1) = -5$	<i>Id. Prop. of Mult.</i>
$2 + (-9) = -9 + 2$	<i>Comm. Prop. of Add.</i>
$y^2 + 0 = y^2$	<i>Id. Prop. of Add.</i>
$2(pq) = (2p)q$	<i>Assoc. Prop. of Mult.</i>
$3a + 0 = 3a$	<i>Id. Prop. of Add.</i>
$7 * t = t * 7$	<i>Comm. Prop. of Mult.</i>
$-19(1) = -19$	<i>Id. Prop. of Mult.</i>
$5 + (-12) = -12 + 5$	<i>Comm. Prop. of Add.</i>

Sep 27-8:00 AM

Unit Analysis

Words: A conversion factor that converts a given measurement to different units.

Example: 1 foot = 12 inches
1 yard = 3 feet
1 gallon = 16 ounces

Sep 27-8:05 AM

The Steel Dragon 2000 is the world's longest roller coaster. Its length is 2711 yards. How long is the roller coaster in feet?

Sep 22-8:39 AM

Bonus Pass 2.1

Are putting on your socks and putting on your shoes commutative activities? Explain.



Sep 21-12:08 PM

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the classwork.

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Sep 18-8:53 AM

Reflection of Today's Lesson**2.1 Properties and Operations**

7.NS

7.EE

- SWBAT add and multiply integers using properties.
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Sep 22-8:36 AM

Homework

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