Properties Flip Book

Fold three pieces of paper such that there is are five one-inch flaps and a top flap approximately three inches wide. Each page will have the words describing the property, a number example, and an algebra example.

Title Page: Properties of Addition and Multiplication

2nd Page: Commutative Property (p. 28)

You can add numbers in any order.

$3 + 8 = 8 + 3$ $a + b = b + a$

You can multiply numbers in any order.

$5 \bullet 7 = 7 \bullet 5$ $ab = ba$

3rd Page: Associative Property (p. 28)

When you add, you can group the numbers together in any combination.

$(4 + 5) + 1 = 4 + (5 + 1)$ $(a + b) + c = a + (b + c)$

When you multiply, you can group the numbers together in any combination.

$(9 \bullet 2) \bullet 6 = 9 \bullet (2 \bullet 6)$ $(a \bullet b) \bullet c = a \bullet (b \bullet c)$

4th Page: Identity Property (p. 28)

The sum of 0 and any number is the number.

$4 + 0 = 4$ $a + 0 = a$

The product of 1 and any number is the number.

$8 \bullet 1 = 8$ $n \bullet 1 = n$

5th Page: Inverse Property (p. 764)

The sum of a number and its opposite is 0. (Additive Inverse)

$9 + (-9) = 0$ $x + (-x) = 0$

The product of a number and its reciprocal is 1. (Multiplicative Inverse)

$8 \bullet 1/8 = 1$ $a \bullet 1/a = 1$ if $a \neq 0$

6th Page: Distributive Property {(p. 29) on left side}

Multiply numbers by breaking apart one of the numbers and writing it as a sum or difference.

$6 \bullet (9 + 14) = 6 \bullet 9 + 6 \bullet 14$ $8 \bullet (5 - 2) = 8 \bullet 5 - 8 \bullet 2$

$a \bullet (b + c) = a \bullet b + a \bullet c$ $a \bullet (b - c) = ab - ac$

Understood 1 {on right side}

Exponents:	$3 = 3^1$	$x = x^1$
Coefficients:	$x = 1x$	$a = 1a$
Radicals:	$\sqrt{2} = 1\sqrt{2}$	$\sqrt{x} = 1\sqrt{x}$
Fractions:	$4 = \frac{4}{1}$	$n = \frac{n}{1}$

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Making A Brochure : Properties of Addition and Multiplication

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Teacher Name: **Mrs. Fryar**

Student Name: _____

CATEGORY	4	3	2	1
Title Page	Title, Name, Date, Class period all present.	Three of four present.	Two of four present.	One of four present.
Commutative Property	Wording present. Number and algebra examples present for each operation.	Wording incomplete. Number and algebra examples present for each operation.	Wording present. Number and algebra examples present but incomplete.	Wording incomplete. Number and algebra examples present but incomplete.
Associative Property	Wording present. Number and algebra examples present for each operation.	Wording incomplete. Number and algebra examples present for each operation.	Wording present. Number and algebra examples present but incomplete.	Wording incomplete. Number and algebra examples present but incomplete.
Identity Property	Wording present. Number and algebra examples present for each operation.	Wording incomplete. Number and algebra examples present for each operation.	Wording present. Number and algebra examples present but incomplete.	Wording incomplete. Number and algebra examples present but incomplete.
Inverse Property	Wording present. Number and algebra examples present for each operation.	Wording incomplete. Number and algebra examples present for each operation.	Wording present. Number and algebra examples present but incomplete.	Wording incomplete. Number and algebra examples present but incomplete.
Distributive Property	Wording present. Number and algebra examples present for each operation.	Wording incomplete. Number and algebra examples present for each operation.	Wording present. Number and algebra examples present but incomplete.	Wording incomplete. Number and algebra examples present but incomplete.
Understood 1	All four examples present.	Three examples present.	Two examples present.	One example present.