associative PROPERTY

commutative PROPERTY

distributive PROPERTY

identity PROPERTY

algebra:	example:	definition:

algebra:	example:	definition:

algebra:	example:	definition:

algebra:	example:	definition:

associative property

commutative property

distributive property

identity property

algebra:	example:	definition:
$(a+b)+c=a+(b+c)$ $(a \cdot b) \cdot c = a \cdot (b \cdot c)$	$(3+6)+4=3+(6+4)$ $9+4=3+10$ $13=13$ $(2 \cdot 5) \cdot 4 = 2 \cdot (5 \cdot 4)$ $10 \cdot 4 = 2 \cdot 20$ $40 = 40$	When you are only adding, or only multiplying, you can group any of the numbers together. The result is the same.

algebra:	example:	definition:
$a+b=b+a$ $ab = ba$	$11+6=6+11$ $17=17$ $8 \cdot 7 = 7 \cdot 8$ $56 = 56$	You can add numbers in any order and multiply in any order. The result is the same.

algebra:	example:	definition:
$a(b+c) = ab + ac$ $a(b-c) = ab - ac$	$3(4+1) = 3(4) + 3(1)$ $3(5) = 12 + 3$ $15 = 15$ $3(4-1) = 3(4) - 3(1)$ $3(3) = 12 - 3$ $9 = 9$	You can multiply a number by a sum (or difference) or multiply each addend by the number and then add. The result is the same.

algebra:	example:	definition:
$a + 0 = a$ $a \cdot 1 = a$	$6 + 0 = 6$ $6 \cdot 1 = 6$	Adding zero does not change the value of a term. Multiplying by one does not change the value of a term.

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algebra:	example:	definition:
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