

Properties Definitions

Property	Definition	Example
Distributive Property	If you multiplied a # into or if you pulled a # out of parenthesis	$a(b+c) = ab+ac$ or $qr+rs = (q+s)r$
Commutative Property	If you reversed the order of addition or multiplication	$a+b = b+a$
Associative Property	If you changed a grouping rearranged parenthesis, but kept everything else in the same order	$a+(b+c) = (a+b)+c$
Additive Identity	If you added 0 to get the same # back	$a+0=a$
Multiplicative Identity	If you multiplied by 1 to get the same # back	$(a) 1 = a$
Zero Product Property	If a product is zero, so you know that one of the factors has to be zero	$ab = 0$ then either $a = 0$ or $b=0$
Reflexive Property	If something is equal to its identical twin	$a=a$
Symmetric Property	If something flipped sides of the equal sign	$a=b$ and $b=a$
Addition Property	If you added the same non-zero # to both sides	If $a=b$ then $a+c = b+c$
Multiplication Property	If you multiplied the same nonzero # to both sides you have used the	If $a = b$ $ac = bc$