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| **Commutative Property** | **Associative Property** | **Distributive Property** |
| Rule: *Changing the order of numbers in an operation without changing the answer***Operations:** *+ and ×***Commutative Property of Addition**$a+b = b+a$$$2+3 = 3+ 2$$$$5 = 5$$**Commutative Property of Multiplication**$a ᐧ b = b ᐧ a$$$2 ᐧ 3 = 3 ᐧ 2$$$$6 = 6$$ | Rule: *Changing the grouping of numbers in an operation without changing the answer***Operations:** *+ and ×***Associative Property of Addition**$a+(b +c) =(a+b) +c$$$(a +3)+5 = a +(3+5)$$$$a + 8 $$**Associative Property of Multiplication**$a ᐧ (b ᐧ c) =(a ᐧ b) ᐧ c$$$(a ᐧ 4)ᐧ 5 = a ᐧ (4 ᐧ 5)$$$$a (20) = 20a$$ | Rule: *Multiply number inside the parentheses by the number outside the parentheses***Operations:** *× with + and × with -***Distributive Property of Addition**$a(b +c) =ab + ac$$$2(a+1)$$$$2a + 2 $$**Distributive Property of Subtraction**$a(b -c) =ab - ac$$$3(a-6)$$$$3a - 18 $$ |

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