



1.2 The Laws of Algebra

Need To Know



- Some of the Laws of Algebra
 - Commutative
 - Associative
 - Distributive



Commutative Law

Commutative Law of Addition

- - Changing _____ in addition does not change the result.

Commutative Law of Multiplication

- - Changing _____ in multiplication doesn't change the result.



Associative Law

Associative Law of Addition

-
- Changing _____ in addition does not change the result.

Associative Law of Multiplication

-
- Changing _____ in multiplication doesn't change the result.



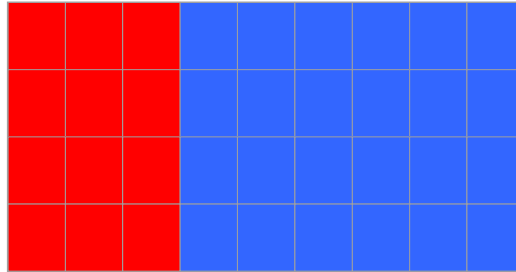
Distributive Law

Distributive Law

- $a(b + c) =$
- Multiplication distributes across addition
- Examples

Distributive Law

Distributive Law – a graphical look



Check for Understanding

Match the statement to its corresponding Law

Math Statement

$$x(9w) = (x9)w$$

$$x + 9 + w = 9 + x + w$$

$$4(a - 5) = 4a - 20$$

Laws

Commutative

Associative

Distributive



Check for Understanding

Identify which law(s) correspond to each statement

1. $t + (3 + w) = (3 + w) + t$

2. $(7 + y) + x = 7 + (x + y)$



Distributive Law – in reverse

Definition:

Factoring or factor means to write an expressions as a product.

The Distributive Law backwards: $ab + ac = a(b + c)$

Examples: Factor each expression.

$$5y + 5z$$

$$9 + 9x$$

$$14a + 56b + 7$$

end