

Algebraic Properties

Addition Property

If $a = b$ then $a + c = b + c$

Subtraction Property

If $a = b$ then $a - c = b - c$

Multiplication Property

If $a = b$ then $ac = bc$

Division Property

If $a = b$ then $\frac{a}{c} = \frac{b}{c}$

Substitution Property

If $a = b$, then a may be replaced by b in any equation or expression

Distributive Property

$a(b + c) = ab + ac$

More Properties of Algebra

Reflexive	For any number a , $a = a$
Symmetric	For all numbers a and b , if $a = b$ then $b = a$
Transitive	For all numbers a , b , and c , if $a = b$ and $b = c$, then $a = c$

Def. Proof

A logical step by step argument in which statement made is supported by **statement that is accepted as true.**



1. Given Information
2. Algebraic Properties
3. Definitions
4. Postulates
5. Theorems
6. Corollaries