

axioms* [axioms]

[illegible]

algebraic properties* [axioms]

properties of equality and inequality (1)

property	equality	inequality
multiplicative property of zero	$a \cdot 0 = 0 = 0 \cdot a$	
zero product	if $ab = 0$, then $a = 0$ or $b = 0$	
reflexive	$a = a$	
symmetric	if $a = b$, then $b = a$	
transitive	if $a = b$ and $b = c$, then $a = c$	if $a > b$ and $b > c$, then $a > c$ if $a < b$ and $b < c$, then $a < c$
addition	if $a = b$, then $a + c = b + c$	if $a < b$, then $a + c < b + c$ if $a > b$, then $a + c > b + c$
subtraction	if $a = b$, then $a - c = b - c$	if $a < b$, then $a - c < b - c$ if $a > b$, then $a - c > b - c$

*given a , b , and c are real numbers



algebraic properties* [axioms]

properties of equality and inequality (2)