algebraic properties* [axioms]

property	equality	inequality

algebraic properties* [axioms]
properties of equality and inequality (2)

property	equality	inequality
multiplication	if $a = b$, then $ac = bc$	if $a < b$ and $c > 0$, then $ac < bc$ if $a < b$ and $c < 0$, then $ac > bc$ if $a > b$ and $c > 0$, then $ac > bc$ if $a > b$ and $c < 0$, then $ac < bc$
division	If $a = b$ and $c \neq 0$, then $a/b = b/c$	if $a < b$ and $c > 0$, then $a/c < b/c$ if $a < b$ and $c < 0$, then $a/c > b/c$ if $a > b$ and $c > 0$, then $a/c > b/c$ if $a > b$ and $c < 0$, then $a/c < b/c$
substitution	if $a = b$, then b can be substituted for a in any equation or inequality	

*given a, b, and c are real numbers

fractions (or pizza math)
addition and subtraction: Least Common Denominator (LCD)