algebraic properties* [axioms]

field properties

property	addition	multiplication

algebraic properties* [axioms]

field properties

property	addition	multiplication
associative	$(a+b)+c = a+(b+c)$	$(ab)c = a(bc)$
commutative	$a+b = b+a$	$ab = ba$
identity	$a+0 = a = 0+a$	$a \cdot 1 = a = 1 \cdot a$
inverse	$a+(-a) = 0 = (-a)+a$	$a \cdot a^{-1}=1=a^{-1} \cdot a$ if $a \neq 0$
distributive	$a(b + c) = ab + ac$ and $ab + ac = a(b + c)$	

*given a, b, and c are real numbers

algebraic properties* [axioms]

properties of equality and inequality (1)