

Remark 5.5. [20R] (Solved on 2022-11-15) Typically^a you use the notations on the left instead of the writings on the right (where x, y, z are in the field and n is positive integer)

$x - y$	$x + (-y)$
$\frac{x}{y}$	$x \cdot y^{-1}$
$x + y + z$	$(x + y) + z$
xyz	$(x \cdot y) \cdot z$
nx	$\underbrace{x + \dots + x}_{n \text{ times}}$
x^n	$\underbrace{x \cdot \dots \cdot x}_{n \text{ times}}$
x^{-n}	$(x^{-1})^n$

Precisely, nx means "add x to itself n times"; the operation $n \mapsto n \cdot x$ can be defined recursively setting $0 \cdot x = 0$ and $(n + 1) \cdot x = n \cdot x + x$. Similarly x^n means "multiply x by itself n times": see the exercise [20Z].

^aTaken from 1.13 in [26]