

	Operator	Identity Value	Identity	Associativity
Numbers	+	0	$(+ \ 4 \ 0) = (+ \ 0 \ 4) = 4$	$(+ \ 2 \ (+ \ 3 \ 4)) = (+ \ (+ \ 2 \ 3) \ 4)$
Numbers	*	1	$(* \ 4 \ 1) = (* \ 1 \ 4) = 4$	$(* \ 2 \ (* \ 3 \ 4)) = (* \ (* \ 2 \ 3) \ 4)$
Strings	append	""	$(\text{append } "foo" \ "") =$ $(\text{append } "" \ "foo") =$ $"foo"$	$(\text{append } (\text{append } "foo" \ "bar") \ "baz")$ $=$ $(\text{append } "foo" \ (\text{append } "bar" \ "baz"))$
Lists	append	'()'	$(\text{append } '(1 \ 2) \ '()) =$ $(\text{append } '() \ '(1 \ 2)) =$ $'(1 \ 2)$	$(\text{append } (\text{append } '(1 \ 2) \ '(3)) \ '(4)))$ $=$ $(\text{append } '(1 \ 2) \ (\text{append } '(3) \ '(4)))$

(reduce + 0 (range 10))



binary, associative operator



identity value