Value of Expression

- We have seen removing ambiguity. (in the parse tree)
  - Operator which is below have more precedence
  - left recursion ⟷ left associativity.

Example:-

$E \to E \& T$	$\{E.val = E.val * T.val\}$
$\mid T$	$\{E.val = T.val\}$
$T \to T @ F$	$\{T.val = T.val - F.val\}$
$\mid F$	$\{T.val = F.val\}$
$F \to num$	$\{F.val = num\}$

Parse the input = 4 & 8 @ 5 & 7 @ 3 and calculate its value.

Solution :- @ will always have more precedence than &. Also, they are both left associative.

$\Rightarrow (4 \& (8 @ 5)) \& (7 @ 3) = (4 * (8-5)) * (7-3)$

$= 4 \times 3 \times 4 = 48$ Ans