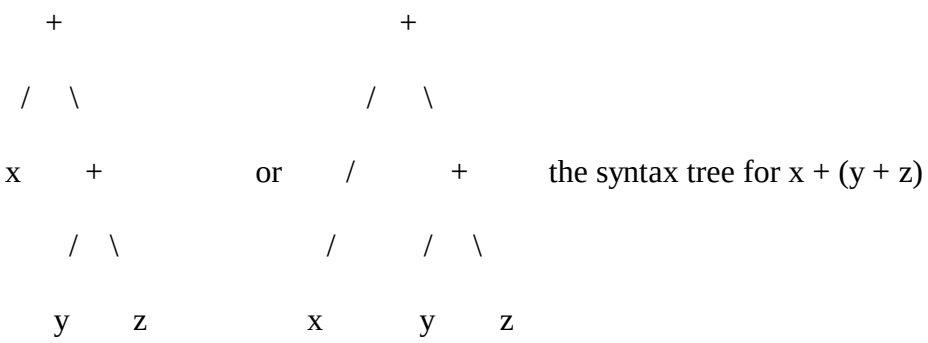
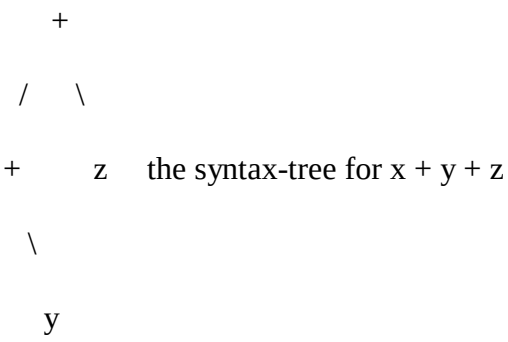
The parentheses-pairs "()" or "[]" act as grouping. In x - (y + z), the parentheses mean you have to do the addition y+z first and then subtract the result from x. That means the result actually equals x - y - z, which is different from x - y + z. The latter means subtract y from x and add z to the result.

On the other hand, x + (y + z) has the same value as x + y + z (addition and subtraction is done from left to right). They nevertheless have different syntax-trees. In the first case, y+z is done first; in the second x + y is done first.



the syntax tree for x + (y + z)

The parentheses does not appear in the syntax-tree here explicitly. The syntax tree in the second case is



the syntax-tree for x + y + z

On the other hand x + (y * z) has the same meaning and the same value as x + y * z; in both cases,

y * z has to be done first and the result to be added to x.

Kundu