

### Answer on Question#38640 – Math - Other

We have 3 types of parentheses: round brackets:  $()$ , square brackets:  $[]$ , and curly brackets:  $\{\}$ . balanced parentheses require every opening parenthesis to be closed in the reverse order opened. For example ' $([])$ ' is balanced but ' $(D)$ ' is not.

By the Chomsky–Schützenberger theorem, any context-free language is a homomorphic image of the intersection of some regular language with a homomorphic preimage of the Dyck language on two parentheses. And the Dyck language (of well-balanced bracket pairs) is non-linear, context-free language.

So the correct answer is **B**.