**Syntax Analysis**

* By Syntax Analysis we mean to analyze different notations in which a ME can be written.
* There are three different Notations in which a ME can be written.
1. **In-Fix Notation:**

Operator is placed between its corresponding operands.

For Example

A + B

A – B

A \* B

A ^ B etc

1. **Pre-Fix Notation:**
* It is also called Polish Notation as it was designed by a Polish Mathematician
* Operator is placed before its corresponding operands.

For Example

+ AB

* AB

\*AB

^ AB etc

1. **Post-Fix Notation:**
* It is also called Reverse-Polish Notation.
* Operator is placed after its corresponding operands.

For Example

AB+

AB-

AB\*

AB^ etc

**Conversion of a ME from In-Fix to Pre-Fix and Post-Fix Notations**

1. Always select an Operator with Least Priority.
2. In case of more than one operator with same priority, select the left-most one.
3. Properly **Underline** both the corresponding sides of the selected Operator.
4. For Pre-Fix Notation, place the selected operator before the corresponding operand.
5. For Pos-Fix Notation, place the selected operator after the corresponding operand.