

## Application of Stack

### Evaluation of postfix expression:

#### Algorithm

- 1) Add ) to postfix expression.
- 2) Read postfix expression Left to Right until ) encountered
- 3) If operand is encountered, push it onto Stack  
[End If]
- 4) If operator is encountered, Pop two elements
  - i) A -> Top element
  - ii) B-> Next to Top element
  - iii) Evaluate B operator A  
push B operator A onto Stack
- 5) Set result = pop
- 6) END

**Expression: 456\*+**

INPUT SYMBOL	STACK	CALCULATION
4	4	
5	4 5	
6	4 5 6	
*	4	$5 * 6 = 30$
+	4 30	$4 + 30 = 34$

**RESULT=34**