

## Stack & Queue

1.

STACK	QUEUE
FILO(1 <sup>st</sup> in LAST out)	FIFO(1 <sup>st</sup> in FIRST OUT)

2.

Infix : Operator in between operand

$$5 + 6 * 3$$

$$== 5 + (6 * 3)$$

$$== 5 + 18$$

$$== 23$$

Prefix: Operator before (left side of) operand

$$+ 5 * 6 3$$

$$== +5 (6 * 3)$$

$$== +5 18$$

$$== 23$$

Postfix: Operator after (right side of) operand

$$5 6 3 * +$$

$$== 5 (6 * 3) +$$

$$== 5 18 +$$

$$== 23$$

## Implementation using stack

### ***INFIX***

Search highest precedence

➔ Jika ( ), pas ketemu (, cari ) lalu hitung yang didalam

Jika sudah tidak ada operator sudah selesai

### ***POSTFIX***

Scan from left to right

If operand push to stack

If operator, pop 2x (A & B) lalu push hasil (B operator A) ke stack

### ***PREFIX***

Scan from right to left

If operand push to stack

If operator, pop 2x, lalu push hasil ke stack