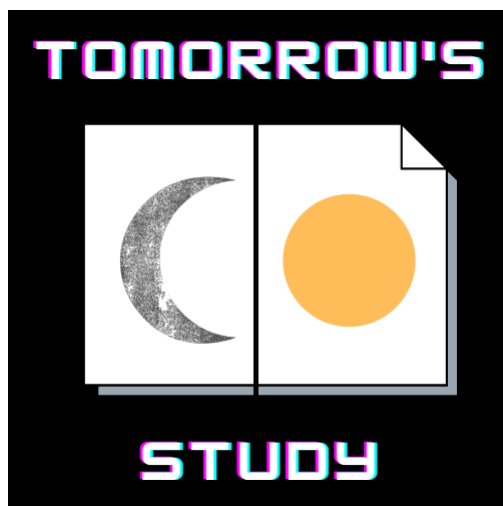


# Advance Functions Formula Sheet

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# 1 Polynomial Functions

## Theorem 1 (Factorial)

$$n! = n \times (n - 1) \times (n - 2) \times \cdots \times 2 \times 1$$

## Theorem 2 (Finite Differences)

$$\Delta y = a \times n!$$

## Theorem 3 (Polynomial Transformation Formula)

$$P(x) = a[k(x - d)]^n + c$$