🔷 1. Powers (Exponents)

A **power** shows how many times a number is multiplied by itself.

👉 Square (^{2})

- A number multiplied by itself.
- Example:
  $5^2 = 5 \times 5 = 25$

👉 Cube (^{3})

- A number multiplied by itself **twice**.
- Example:
  $2^3 = 2 \times 2 \times 2 = 8$

👉 Other Powers

- Any number raised to another exponent.
- Example:
  $3^4 = 3 \times 3 \times 3 \times 3 = 81$

🔷 2. Roots

A **root** finds the original number before it was raised to a power.

👉 Square Root (√)

- The number which when squared gives the original number.
- Example:
  $\sqrt{36} = 6$ because $6^2 = 36$

👉 Cube Root (∛)

- The number which when cubed gives the original number.
- Example:
  $\sqrt[3]{27} = 3$ because $3^3 = 27$

👉 Other Roots

- Example:
  $\sqrt[4]{81} = 3$ because $3^4 = 81$

🔷 3. Calculator Tips

- Use `x²` for squaring.
- Use `√` for square root.
- Use `^` or `xʸ` for other powers.
- Use a special root function or `x^(1/n)` for nth roots.

🔷 4. Examples

Expression	Meaning	Answer
4^2	Square of 4	16
$\sqrt{49}$	Square root of 49	7
5^3	Cube of 5	125
$\sqrt[3]{64}$	Cube root of 64	4
2^5	2 raised to the power of 5	32
$81^{1/4}$	4th root of 81	3