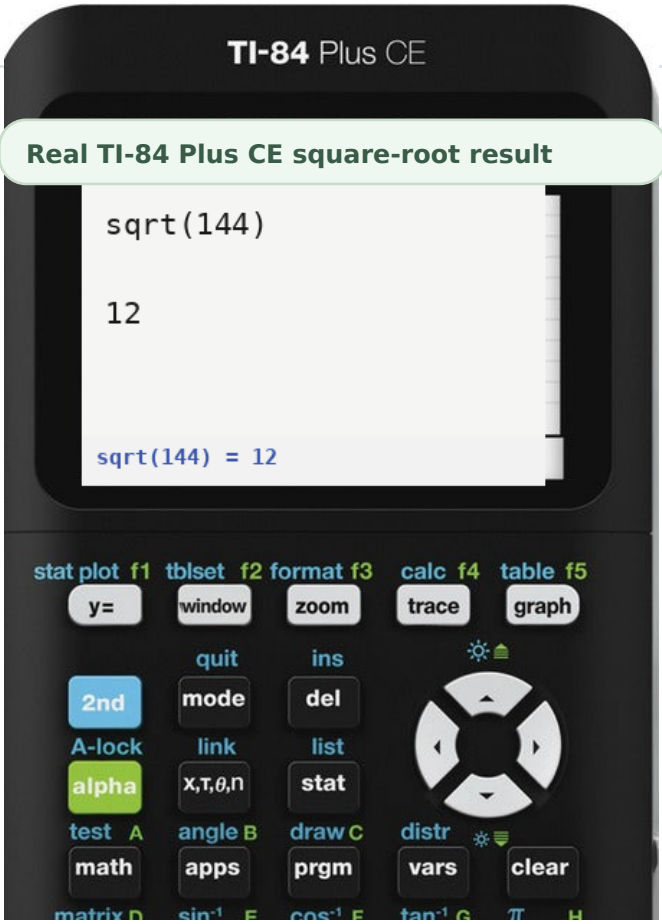
4. Fractions and powers

School-poster style • Example: √144 = 12

C4C POSTER



Real TI-84 Plus CE square-root result

What students should notic

- 2nd + x² opens the square-root function.
- Parentheses keep multi-part expressions organized.
- x² squares a value; ^ raises to other powers.

Teacher talk

Ask: “What number multiplied by itself gives 144?” Then use the calculator to verify.

Expected result

Students should obtain 12 and connect the calculator result to 12 × 12 = 144.

Key sequence 2nd (A-lock) → x² → 1 → 4 → 4 → ENTER

Open √(

2nd (A-lock) → x²

Press 2nd, then x² to access the square-root function.

Enter 144

1 → 4 → 4

Type the radicand inside the square root.

Press ENTER

ENTER

Evaluate the expression.

Explain 12

$12^2 = 144$, so $\sqrt{144} = 12$.

Fractions and powers: classroom support

Key-by-key reminder, common mistakes, and a student challenge

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Key-by-key reminder

2nd
Open the secondary function.

x²
Square; with 2nd it opens √(

^
Use another exponent.

ENTER
Evaluate the expression.

DEL
Fix one entry.

CLEAR
Restart the line.

5-minute classroom routine

1. Ask students to estimate √144.
2. Open the square-root function.
3. Enter 144.
4. Press ENTER.
5. Connect 12 to $12^2 = 144$.

Common mistakes to watch

- Forgetting to use 2nd before x^2 for the square-root function.
- Missing a closing parenthesis in a longer expression.
- Confusing x^2 with the general exponent key ^.

Student challenge / exit ticket

Try one of these follow-up tasks:

√81	**5^2**	**2^5**

Estimate first. Then evaluate and explain what the operation means.