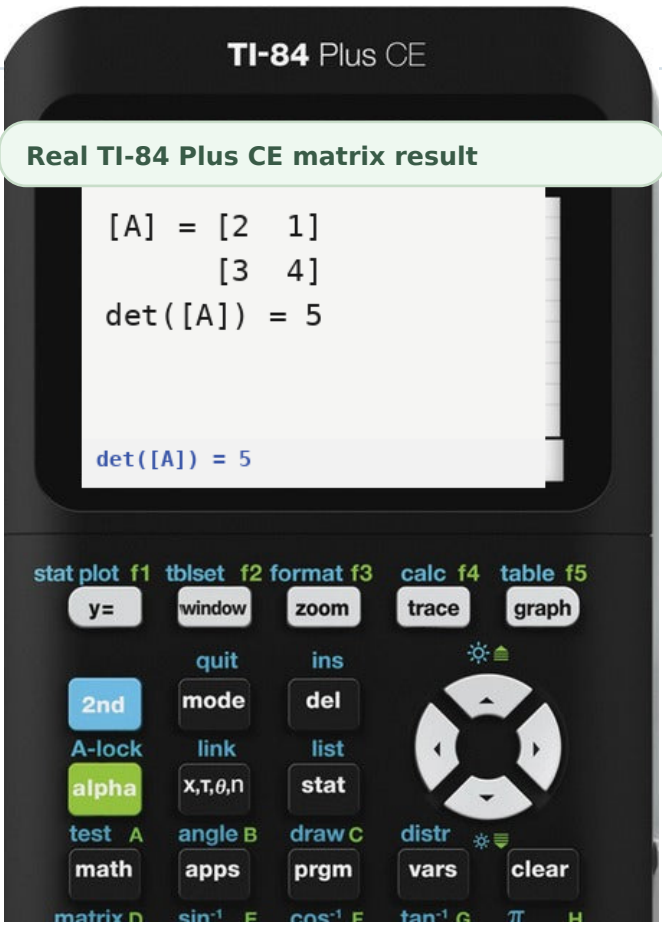
6. Matrices

School-poster style • det([[2,1],[3,4]]) = 5

C4C POSTER



What students should notic

- Set matrix dimensions before entering values.
- Store the example in matrix [A].
- The determinant command returns a single number.

For [[2,1],[3,4]], det([A]) = 5

Teacher talk

Ask: “What must be true about matrix dimensions before we add or multiply matrices?”

Expected result

Students should get 5 and recognize that matrix operations depend on dimensions.

Key sequence 2nd (A-lock) → x^{-1} → EDIT → [A] → det(→ ENTER

Open MATRIX

2nd (A-lock) → x^{-1}

Press 2nd, then x^{-1} to open the matrix menu.

Edit [A]

EDIT → [A]

Choose EDIT and create a 2 × 2 matrix.

Enter values

Enter 2, 1, 3, 4 into [A].

Find det([A])

det(→ [A] → ENTER

Use det([A]) and press ENTER.

Matrices: classroom support

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

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Key-by-key reminder

2nd
Open the MATRIX menu.

x⁻¹
MATRIX is its secondary function.

EDIT
Change matrix dimensions/entries.

[A]
Refer to matrix A.

det(
Start a determinant calculation.

ENTER
Evaluate or confirm.

5-minute classroom routine

1. Draw the 2 × 2 matrix on the board.
2. Create [A] on the calculator.
3. Enter the four values.
4. Run det([A]).
5. Discuss why dimensions matter.

Common mistakes to watch

- Choosing the wrong matrix name.
- Entering the right values in the wrong positions.
- Trying an operation with incompatible dimensions.

Student challenge / exit ticket

Try one of these follow-up tasks:

[[1,2],[3,5]]

[[4,0],[2,3]]

[[2,−1],[6,4]]

Create each matrix and compare determinant results.