

AI MATH STUDY CHECKLIST

Use AI to understand math — not to avoid thinking.

THE GOLDEN RULE
ATTEMPT → ASK →
UNDERSTAND → VERIFY →
PRACTICE

THE 5-STEP LEARNING LOOP

1. SOLVE



2. TEACH GAP



3. EXPLAIN WHY



4. VERIFY



5. PRACTICE ALONE

01 BEFORE USING AI

- ☐ I read the problem carefully.
- ☐ I identified what the question is asking.
- ☐ I recalled the relevant formula, rule, or concept.
- ☐ I tried the problem myself first.
- ☐ I wrote down my working, even if I am unsure.
- ☐ I identified the exact step where I became stuck.

Ask yourself: "What do I already understand, and where exactly did I get lost?"

02 ASK AI THE RIGHT WAY

- ☐ Ask for ONE hint.
- ☐ Ask AI not to give the final answer.
- ☐ Give AI my own working.
- ☐ Ask it to find the FIRST incorrect step.
- ☐ Ask what I misunderstood.

PROMPT — IF STUCK:

"I'm stuck at this step. Don't solve the problem for me. Give me one hint that helps me figure out what to do next."

PROMPT — IF MISTAKE MADE:

"Find the first step where my reasoning goes wrong. Explain what I misunderstood, but don't give me the full solution yet."

03 UNDERSTAND THE WHY

- ☐ I know why the step works.
- ☐ I can explain the rule in my own words.
- ☐ I understand why this formula applies here.
- ☐ I can identify what would change if the numbers changed.
- ☐ I am not simply copying the AI explanation.

Test: Close the AI. Can I explain the idea without looking?

04 VERIFY BEFORE TRUSTING

- ☐ I checked the final answer independently.
- ☐ I checked important calculations.
- ☐ I used a second reliable math tool when appropriate.
- ☐ I checked whether the reasoning—not just the final number—is correct.
- ☐ If two tools disagree, I went back to the mathematics instead of choosing the answer I preferred.

Remember: Confident AI ≠ automatically correct AI.

05 CLOSE AI & RETRY

- ☐ Put the AI tool away.
- ☐ I solved the same problem again without help.
- ☐ I did not look at the previous solution.
- ☐ I found the step I previously missed.
- ☐ I completed the problem independently.

The real test: Can I solve it without AI now?

06 PRACTICE A SIMILAR PROBLEM

- ☐ I attempted a new problem.
- ☐ The new problem uses the same concept.
- ☐ I solved it without AI.
- ☐ I checked my answer only after finishing.
- ☐ I can explain the method without copying the previous example.

07 FINAL DEPENDENCY CHECK

- ☐ Did I attempt first?
- ☐ Did I ask for a hint instead of an answer?
- ☐ Did I understand the reason behind the solution?
- ☐ Did I verify important results?
- ☐ Did I solve the problem again alone?
- ☐ Did I complete a similar problem without AI?

If mostly YES: AI helped you learn.

If mostly NO: AI probably did too much of the thinking.

INDEPENDENCE SCORE

0 = Needed AI throughout | 1 = Needed several hints
2 = Needed one hint | 3 = Solved independently

Today's score: ____ / 3

**"The goal is not to need better AI.
The goal is to need less AI.
Use AI as a tutor. Keep yourself as the learner."**