

A Few Remarks About Learning

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About Arithmetics ...

- Mental arithmetics
 - 12×11 ?
 - Answer: 132
- Using a calculator
 - 7184×131 ?
 - Answer: 81345455469781
 - Wrong!
 - Correct answer: 941104



Why can you tell right away that the first result of the calculator was wrong?

About Learning ...

- You only know things that you have stored readily in your head
 - The sum of what you have learned (facts, knowledge, experiences) defines the acquired literacy for your life and how independent, self-contained you are!
- Using tools to get (unknown) information is
 - Sometimes fine (finding alternatives, doing a proof-check, getting explanations...),
 - Sometimes counter-productive (if only using the result without digesting, thinking about the supplied results), e.g., for learning, for assessing ...
- If *you* want to learn something, it is mandatory that *you* work, *you* experiment, *you* create, so that the knowledge and gained experiences get stored in *your* head!
 - Even frustration becomes "experience" over time and helps solve problems faster!

Suggestions to Ease (Sic!) Learning ...

- Do *not* use any "other means" (persons, books, tools, including AI, etc.) when *learning basics, learning the foundation of a field!*
 - In groups where an advanced skilled person is kindly asked to play the role of a tutor for the non- or lesser-skilled person, please let the non- or lesser-skilled person start out to create the short programming homework assignments
 - Help as a tutor (especially in the beginning) the lesser skilled person to understand concepts that may still be "alien" or not understood
- *Once the basics of a field are well understood*, it may be helpful to use "other means", e.g. to have your code analyzed (feedback), to come up with alternatives (brainstorming), to get additional explanations, etc.