A Few Remarks About Learning

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About Arithmetics ...

- Mental arithmetics
  - 12*11 ?
    - Answer: 132

- Using a calculator
  - 7184x131 ?
    - 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.

You Must Not Use AI-Code for Homeworks!

- You **must** *create the short homework programs* **on your own, manually!**
  - Use the slides and your notes
  - Study the nutshell examples
  - Study the reference documentation (`rexxref.pdf`)
  - Only use the Internet, AI for clarifying concepts (as a tutor) in addition to asking questions

- Concluding project: *You may use AI tools for researching, drafting*
  - You may use AI for brainstorming
  - You may use AI for assessing alternative implementation approaches
  - *You must code yourself, manually!*
    - You *may create possible solutions with AI,* but need to simplify and guarantee that it works according to the project's specifications!
    - You **must** *understand each detail and must be able to explain and justify all applied techniques in the code!*