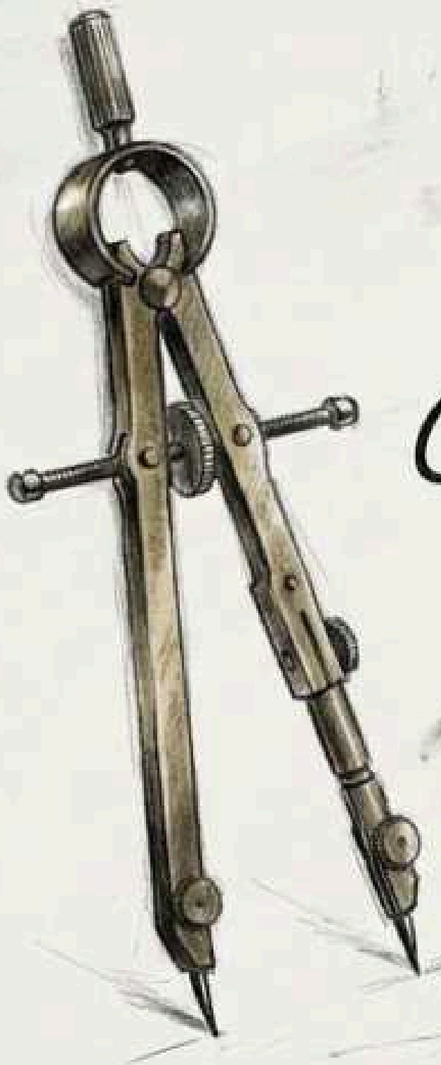


CS 101 B: Introduction to Computer Science and Programming

Anderson Academy

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01110000 01110010 01110010 01101111 01100111 01110010 01100001
01101101 01101101 01101110 01100111

-  @garyanderson on X
-  garyanderson@mail.grokbot.com

Questions & Feedback Always Welcome.



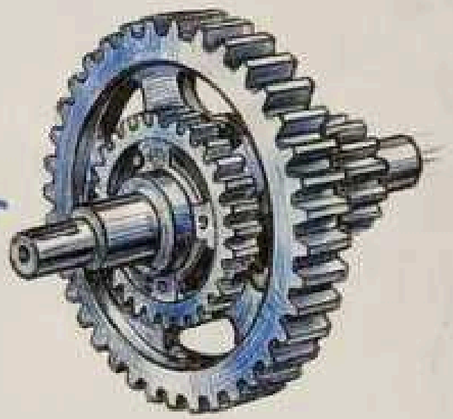
CS 101 B = Brief

1 Overview

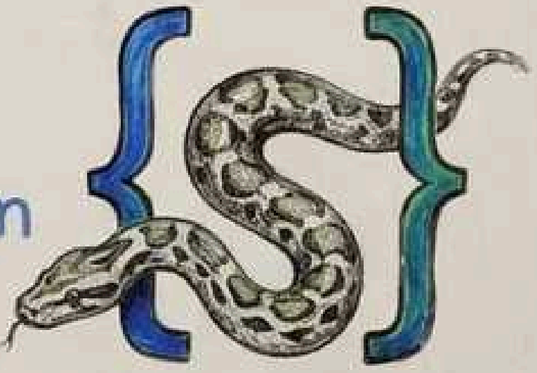
6 Lectures

~60 Minutes

Understand basic computer functions



Read/write small Python programs



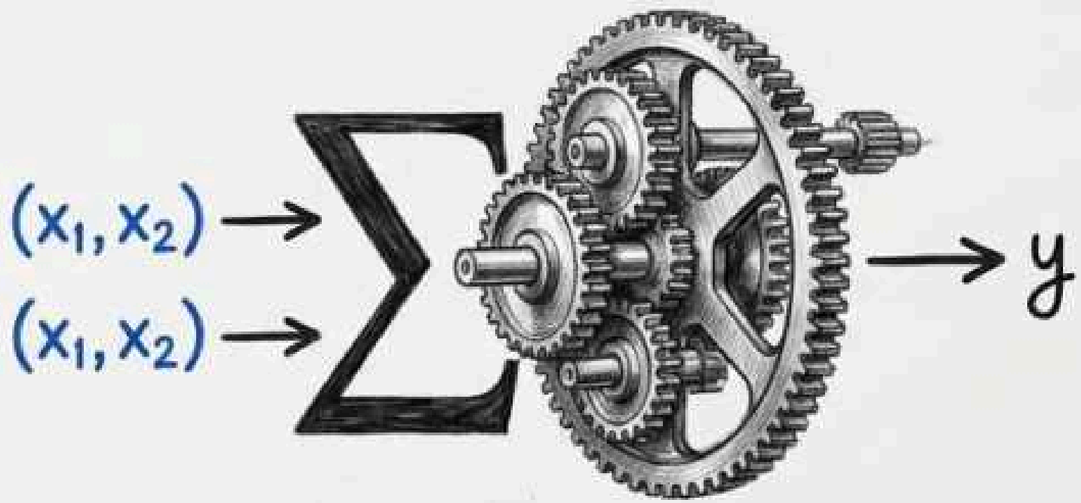
¶ 0.3

Not the Study of Computers



Astronomy is not the study of telescopes. Computers are simply the tools.

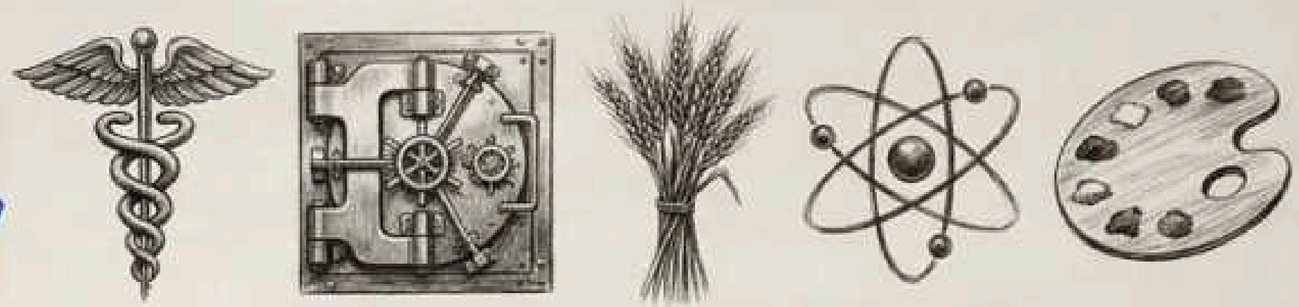
The Study of Computation



- Describing a procedure precisely for a machine.
- Defining what can and cannot be computed.
- Optimizing speed and reliability.

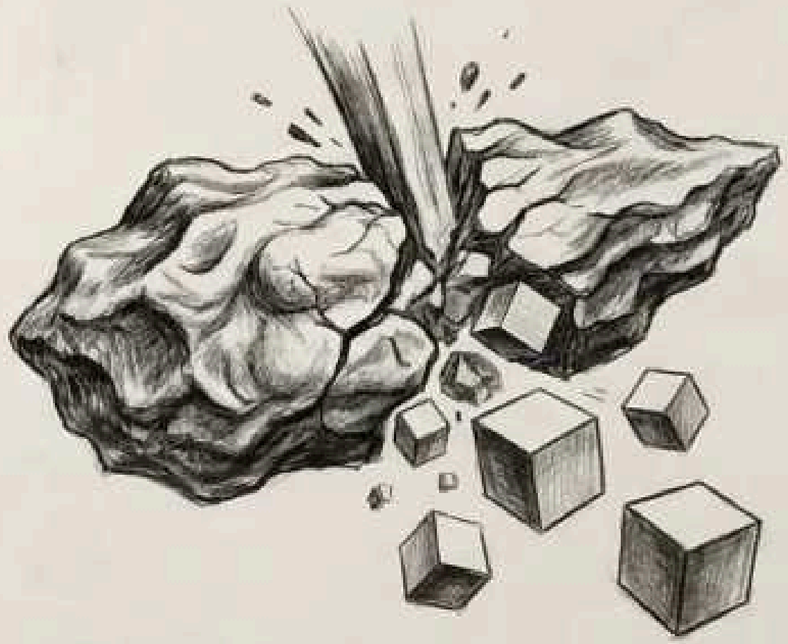
¶0.4

Software sits
inside everything.



Why Learn This?

Programming is
a way of thinking.



Notice patterns | Say exactly what you mean
Useful even if you never write code.

¶ 0.5

The Prerequisites



Ordinary Arithmetic



Curiosity

~~Prior Programming Experience~~

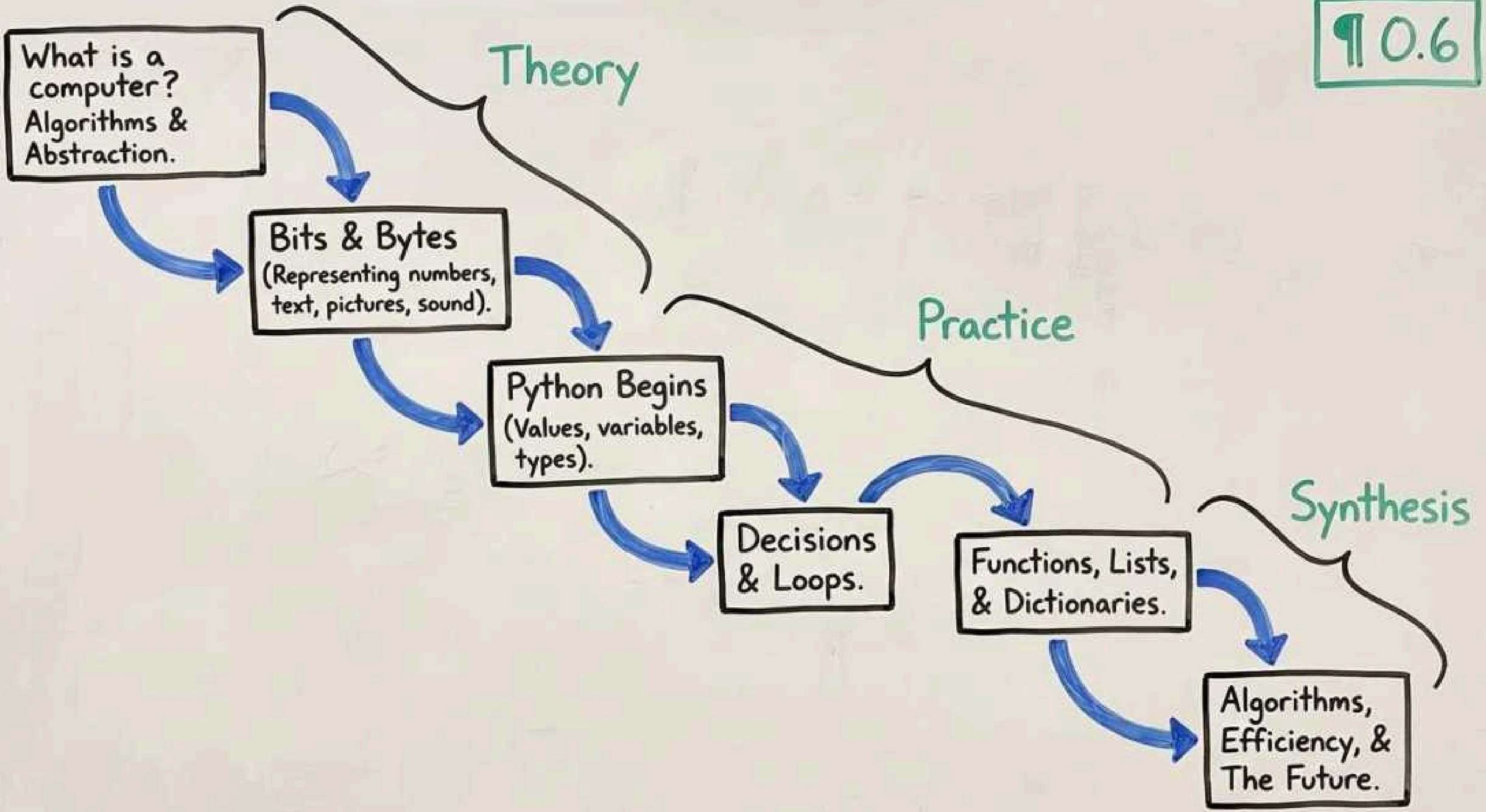
The Toolkit

Learn by doing.
Try the examples yourself.



Install for free from python.org

Use a free browser-based Python page


¶0.6
Theory
Practice
Synthesis
What is a computer? Algorithms & Abstraction.
Bits & Bytes (Representing numbers, text, pictures, sound).
Python Begins (Values, variables, types).
Decisions & Loops.
Functions, Lists, & Dictionaries.
Algorithms, Efficiency, & The Future.

¶ 0.7

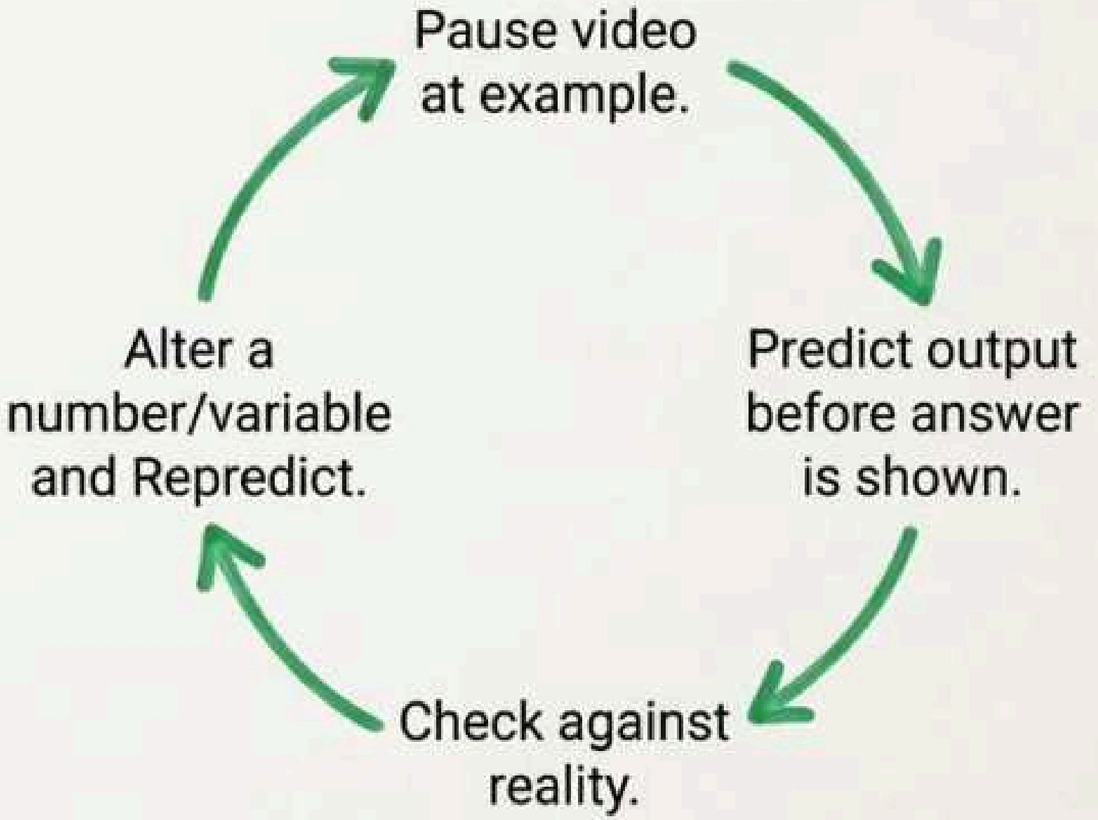
The Failing Strategy

Do not just watch.

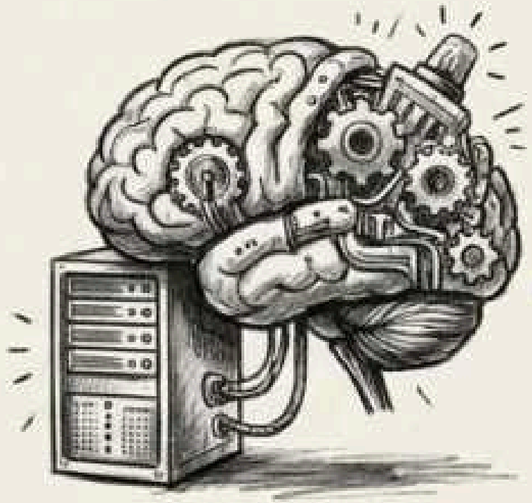


The Winning Strategy - The Prediction Cycle

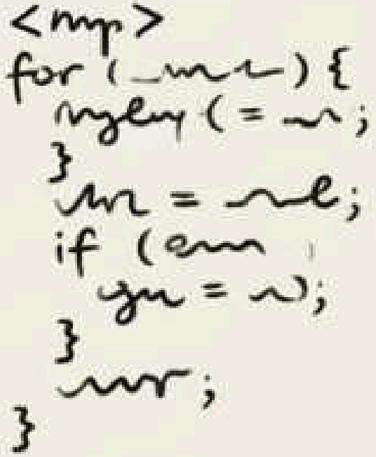
The fastest way to build a true mental model.



¶ 0.8



AI Tool
generates code



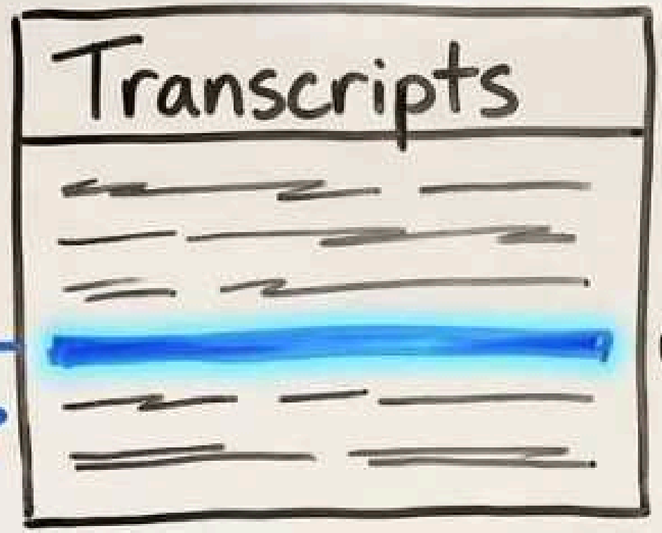
Code
Generation

Understanding is more
important, not less.



- Test
- Validate
- Decide if Right

¶0.9



ID: 3.5 (Lecture 3, Paragraph 5)

Quizzes

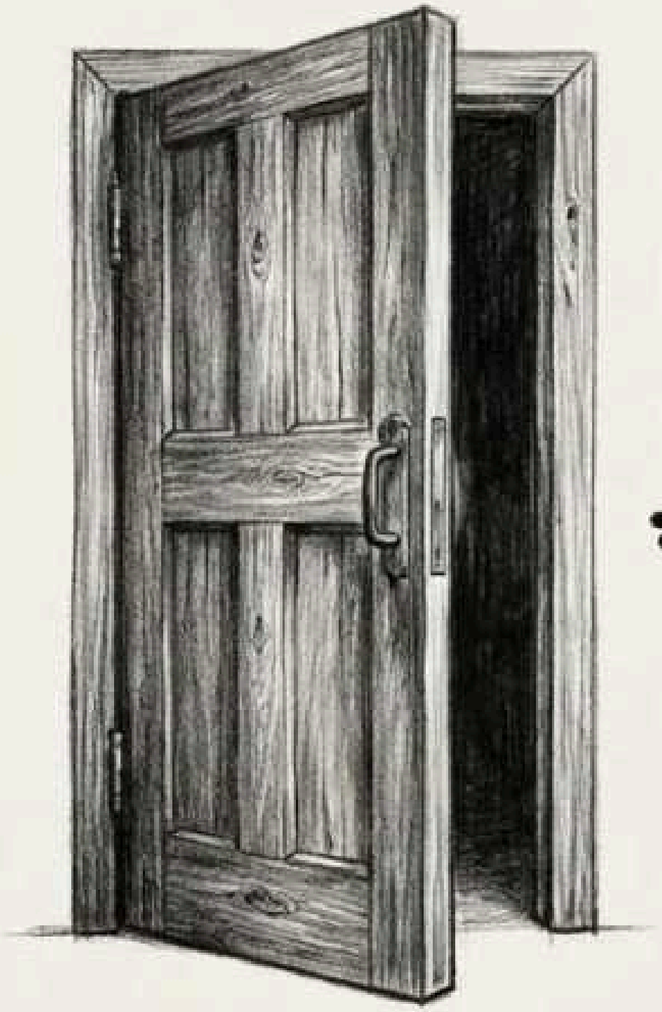
5 Questions per lecture.
Answers point back to specific numbered paragraphs.

Thought Questions

1 per lecture.

Quizzes are to help you learn, NOT to grade you.

¶ 0.10



Now let us begin, in lecture one.