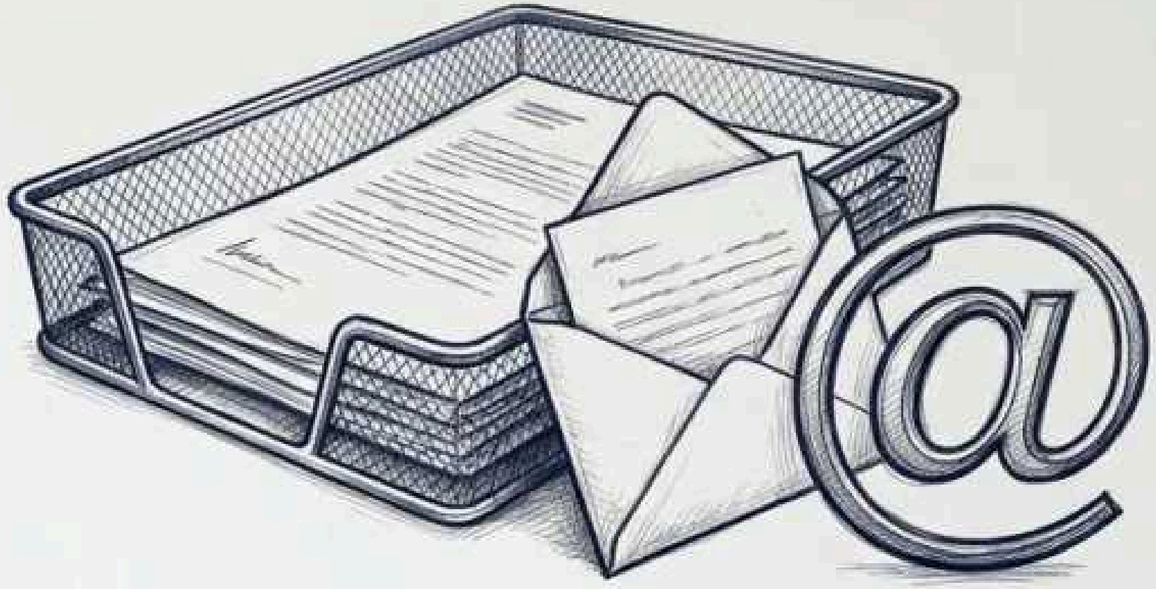


Questions & Feedback Always Welcome

- Email: garyanderson@mail.grokbot.com
- X (Twitter): @garyanderson

¶0.2

Welcome to Anderson Academy:
A free library of university-level courses designed for brevity. (B stands for Brief).

[Math 101 B] = Overview + 6 Short Lectures ≈ 1 Hour

Course Objective (Outcome): By the end of this hour, you will be able to read, write, and solve basic algebraic equations with total confidence.

¶ 0.3

Arithmetic

Focuses on particular numbers.

$$3 + 4 = 7$$

Algebra

Focuses on patterns and unknown variables.

$$x + y = z$$

The Paradigm Shift:

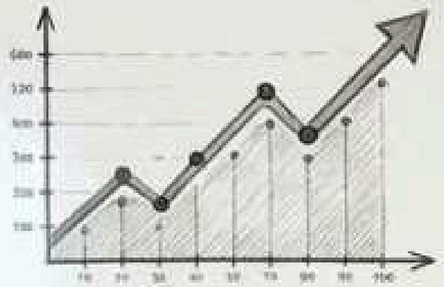
Using **letters for numbers** that are unknown or can change allows **one short sentence** to describe **thousands of calculations** at once.

The Tool For: Science | Engineering | Finance | Computing

The Core Question: If this changes, how does that change?

¶0.4

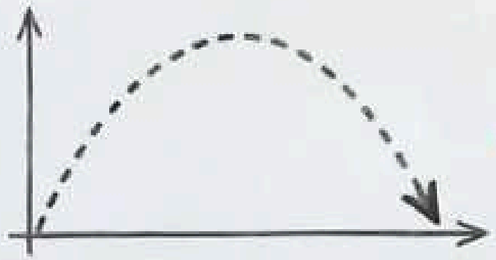
(If you are asking this, you are already doing algebra)



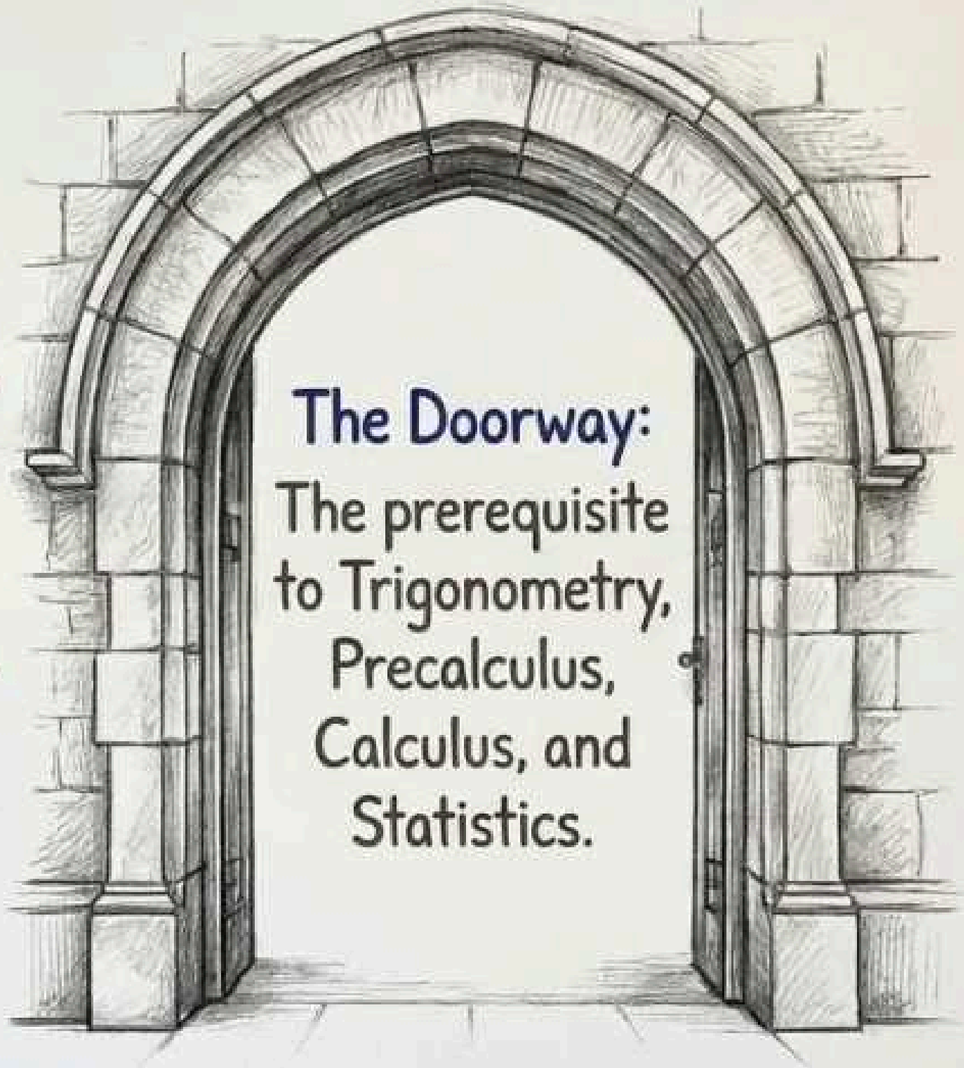
How long will my savings last?



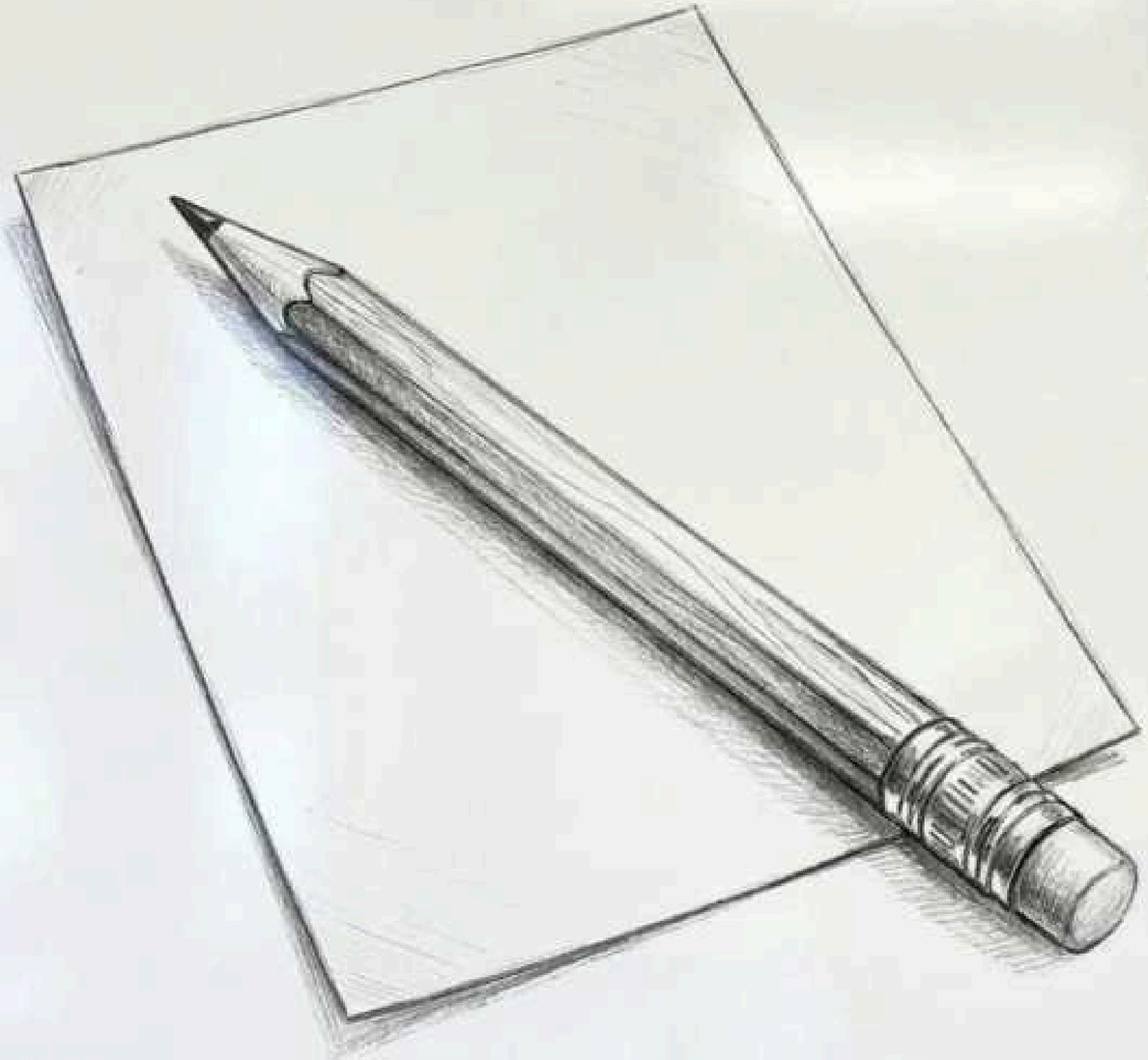
Which phone plan is cheaper?



How high will a thrown ball go?



¶0.5



Prerequisites: Very little.

- ☑ Ordinary Arithmetic
- ☑ Fractions (e.g., $\frac{1}{2}$, $\frac{3}{4}$)
- ☑ Negative Numbers (e.g., -5, -10)

The Pedagogy: Taught by Gary Anderson (25 years experience). Explanations are strictly structured based on the order in which students actually find the ideas easy.

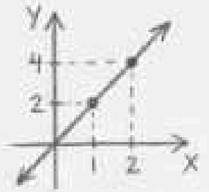
L1: Variables & Expressions

$x + 3$

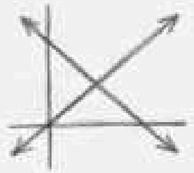
L2: Linear Equations & Inequalities

$2x = 10$

L3: Straight Lines



L4: Systems of Equations

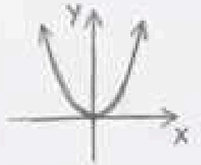


$$\begin{cases} x-y=2 \\ x+y=4 \end{cases}$$

L5: Exponents, Polynomials, Factoring

$x^2 + 2x + 1$

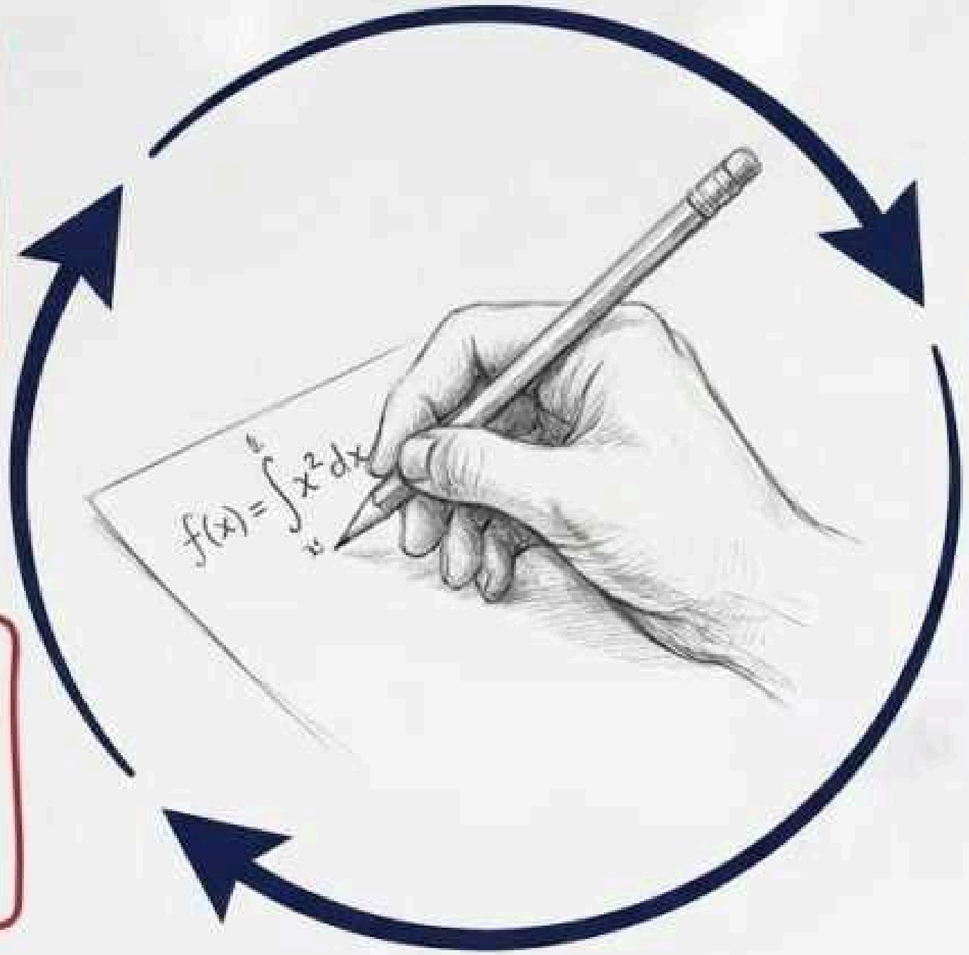
L6: Quadratic Equations



Core Rule: Do not just watch. Mathematics is learned by doing.

Step 1: Listen.

Hear the equation read aloud (all equations in transcripts are written out in words).



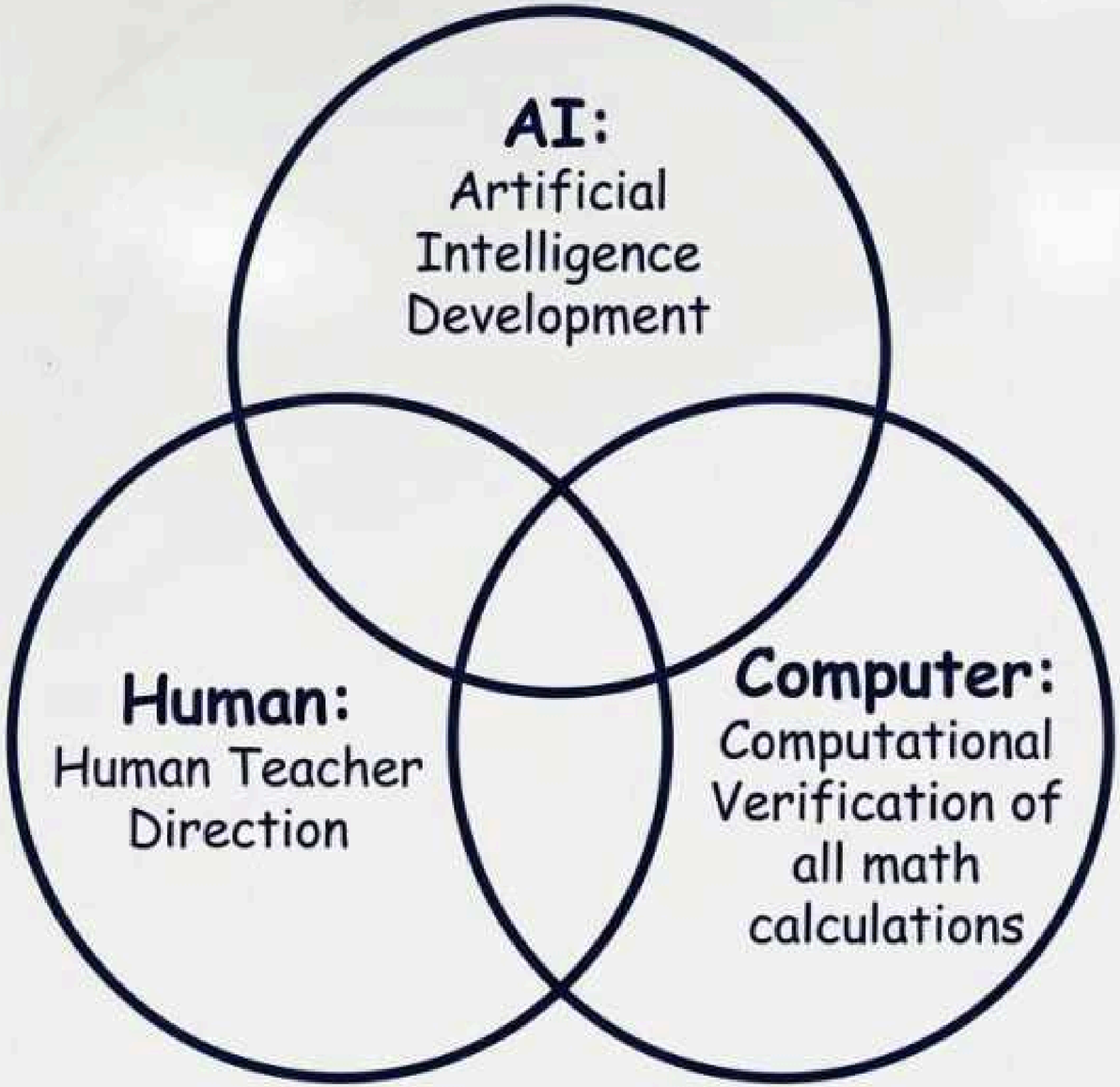
Step 2: Pause & Write.

Translate the spoken words into math symbols on paper as you listen. (Excellent practice in itself).

Step 3: Solve.

Try the worked example yourself before hearing the answer.

¶ 0.8



Error Reporting Protocol:

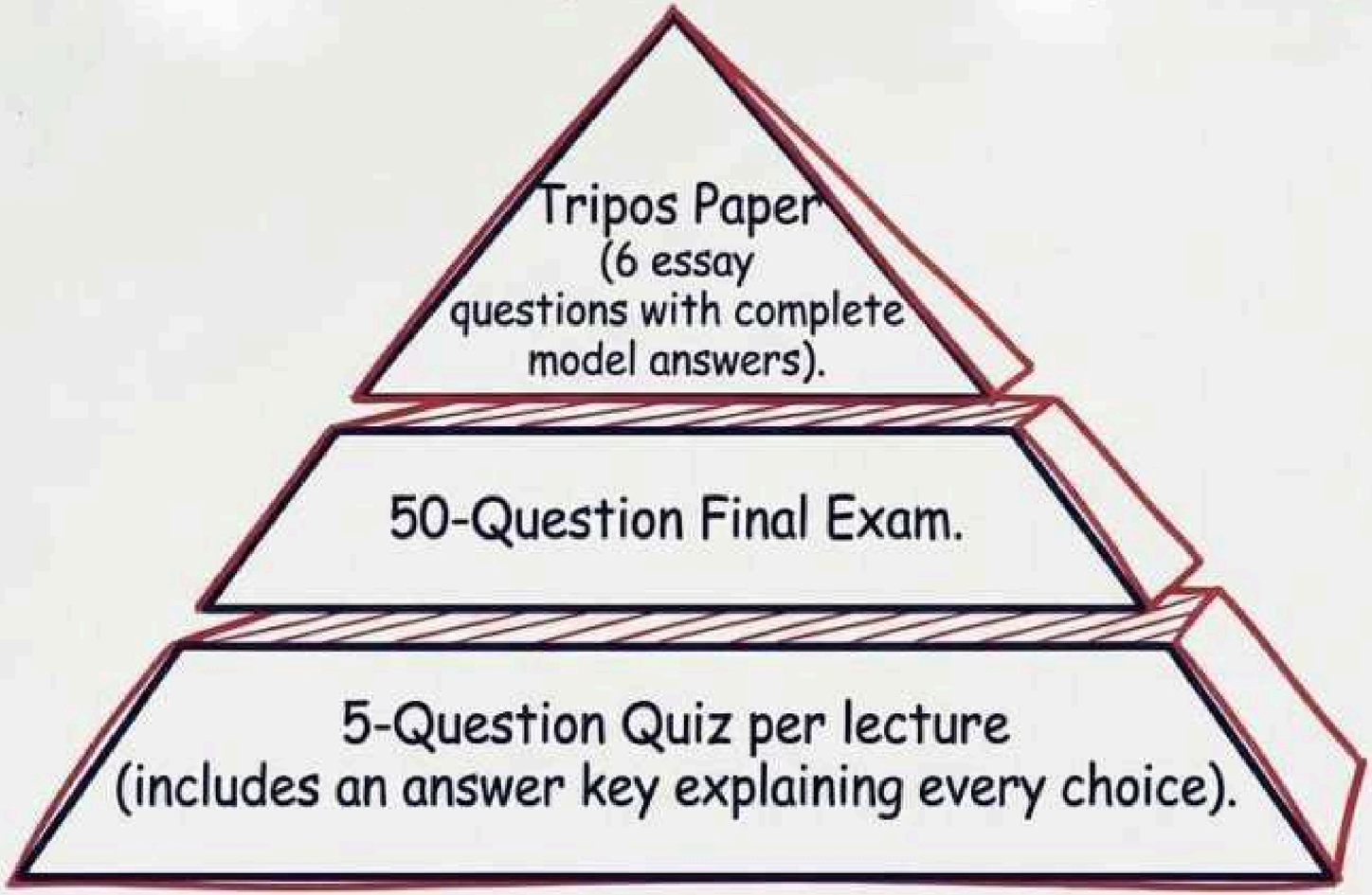
Mistakes are still possible. If found, report them using the exact paragraph number.

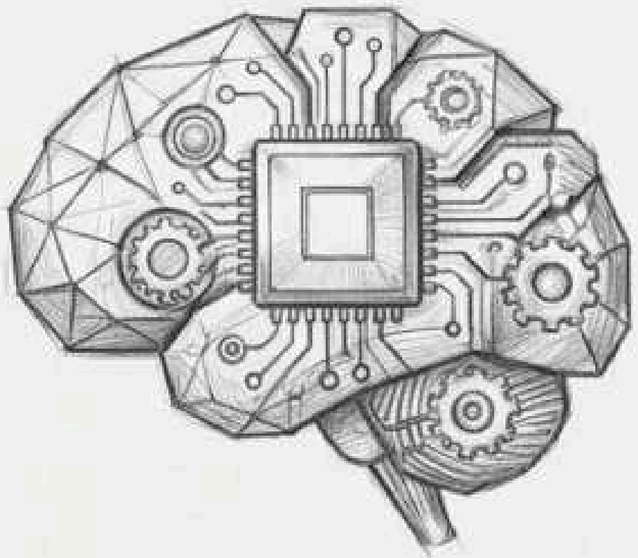
Example: Lecture three, paragraph six is exactly ¶ 3.6.



¶ 0.9

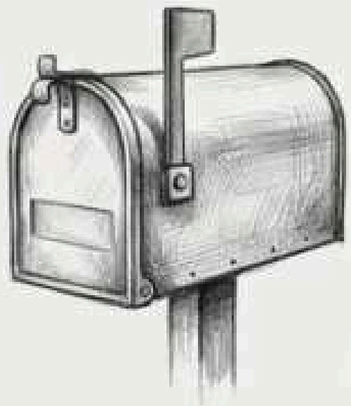
Core Philosophy: Assessments are formative—built to help you learn, not just to grade you.





Alternative Tool:
You can also feed the course transcripts to an AI tutor and ask it to quiz you.

Contact



Email:
garyanderson@mail.grokbot.com

X: @garyanderson

Proceed to Lecture 1

The most important idea in algebra—using a letter to stand for a number.