

READING YOUR MATH TEXTBOOK

Math text material is different from other types of reading material.

Every word or symbol or illustration is important. In some text material as much as 80% of the content is unimportant.

Always read slowly and carefully.

A single word can have a big impact - a word like all or not or if.

Visual devices present a large amount of information in compact form.

Always read with pencil and paper. Reading is not doing.

We remember about 10% of what we read.

We remember about 90% of what we do and say.

Before you read:

Be aware of any special features of your textbook and how they can help you.

Be sure that you understand concepts from preceding sections.

Preview/survey: (about 5-10 minutes per section)

Note objectives for each unit/chapter/section.

Survey section and topic headings; they indicate essential ideas which will follow.

Read introductory or leading paragraphs, closing paragraphs and summaries.

Note unfamiliar terms or symbols.

Read highlighted information, visual models, charts or tables, kinds of examples.

Read in depth: (as much as 30 minutes per section)

Read actively. Turn headings into questions.
Pay attention to highlighted information and visual models.
Identify the main ideas.
Expand on text with written explanations.

New terms and symbols: Express meaning in your own words.
Say words that go with symbols.
Think of examples and non-examples.

Diagrams, graphs and charts:
Read titles and labels and scales.
Notice changes in quantities and relationships between quantities.
What is purpose?

Examples: Perform all computations.
Work through each step.
Supply missing steps in margins.

Formulas/procedures: Identify purpose of formula or procedure.
Translate formula into words.
Identify quantities necessary at beginning.
Identify quantities known when done.

Highlight/Underline/Comment:
Highlight to emphasize main ideas to focus attention now.
Highlight to summarize for study/review later.
Mark definitions, properties, formulas, summary statements.
Supply any missing information in margins.
Mark ideas which are unclear or difficult.

Section/Chapter Summary: Connect with text material in section/chapter.
Express information in your own words.

Reflect:

Identify main ideas, extensions of ideas and applications of ideas.
Connect new information with previous ideas.
Compare with class notes and handouts.
Prepare questions on difficult concepts.