$\mathbb{N}$ natural numbers
$\mathbb{Z}$ integers
$\mathbb{Q}$ rational numbers { ratio of integers / repeating or terminating decimals }
irrational numbers
$\mathbb{R}$ real number system – complete ordered field what does that mean? contents of 1.1, 1.2, 1.3

Triangle Inequality ; Reverse Triangle Inequality ; geometric series, sum

Completeness Axiom – preliminary bound { concepts: above, upper, below, lower } { sup, inf }

Archimedean Property { Page 23 } { four versions Page 24 }

{ use of Archimedean property – like thm 1.18 }

definition
HL correspondence, cardinality, finite, infinite, countably infinite, countable, uncountable, examples of each { Thm 1.20 }

Definitions – Page 50, 51, 52, 55, 63, 69, 71, 73
and calculations based upon these definitions like

① Show $\lim_{n\to\infty} \frac{5n+8}{2n+3} = \frac{5}{2}$

② Calculate $\liminf_{n\to\infty} \frac{5n(-1)^n+8}{2n+3}$ and $\limsup_{n\to\infty} \frac{5n(-1)^n+8}{2n+3}$

③ Tell why $\lim_{n\to\infty} \frac{5n(-1)^n+8}{2n+3}$ does not exist.

Statements, Proofs, Applications of Named Theorems like Squeeze Theorem for Sequences
Monotone Convergence thm (2.10)
Nested Interval thm
Bolzano Weierstrass thm

Understand Proofs of other simple thms such as Thm 2.5, 2.4, 2.9, 2.12, 2.7 and applications

and applications of thms harder to prove 2.22, 2.21, 2.13