

COMP11120 Notes

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1 Discrete Structures

1.1 Terminology

A *structure* consists of certain *sets*. It also contains *elements* of these sets, *operations* on these sets and *relations* on these sets.

1.2 Carriers to learn

The following carriers must be learnt:

- \mathbb{N} The set of natural numbers (all whole numbers from 0 to ∞)
- \mathbb{Z} The set of integers (all whole numbers from $-\infty$ to ∞)
- \mathbb{Q} The set of rational numbers (any integer divided by any other integer
e.g. $\frac{5}{4} = 1.25$)
- \mathbb{R} The set of real numbers (all finite and infinite decimal numbers)