Lecture 2 (Sep 28): Implications

Truth table for $\Rightarrow$
Various ways implications are written.
Definitions of ‘divides’, ‘is a multiple of’.
Proof of: If $n$ is even, then $n^2$ is even.
Compound statements with ‘$\Rightarrow$’, ‘or’, and ‘and’.

Lecture 3 (Sep 30): Proofs

Types of proofs and examples of such proofs.
Direct proofs.
Proof by cases.
Backwards proofs.

Lecture 4 (Oct 2): Proofs by contradiction

Proof by contradiction.
Proof of: $\sqrt{2}$ is irrational.
Proof by contrapositive.