

Proof = Explanation why a statement \Rightarrow true.

Types:

Direct Proof

Indirect Proof

Induction Proof

Sets
functions
relations

Counting

= means "is"

Statement = a sentence that is either
true or false

Cannot be both true $\&$ false

A statement is specific \rightarrow A statement is not subjective

Definitions are very important

Cannot confirm if true or false unless all things
are clearly defined $\&$ have one definition.

Proof \rightarrow Create a definition \rightarrow find examples/evidence

↓
 P & Q are statements \supset

P & Q true if both P & Q true

P or Q false only if both P & Q are false

if P then Q false only when P is true
& Q is false.

if P is false then the statement is true.
Vacuous truth