1.2 Deductive Structures

1 General Statements

Counter Example: An example that disproves that something is always true
Example: "All prime numbers are odd" is disproved by "2 is a prime number"

Deductive Structure: Scaffolding of information used for reasoning
Example: $A = B$. $B = C$. Therefore, $A = C$

Postulates → Theorems → Definitions
Unproven → Proven → definition of statement/word

Declarative Statement: Statement without "if" "then" "but"
Example: An odd number + odd number is even

Conditional Statement: If...Then
Example: If P then Q

2 Types of Conditional Statements

Normal
If P then Q
Converse
If Q then P
Inverse
If !P then !Q
Contrapositive
If !Q then !P