2-1 Inductive Reasoning	Reasoning based on observation of patterns or past experiences.
2-1 Conjecture	An educated guess based on inductive reasoning. Expected to be true, but not yet proved. Can be true or false.
2-1 Counterexample	A single, false example that disproves a conjecture.
2-2 Conditional	An if-then statement. Usually "if p then q" or "p → q".
2-2 Hypothesis	The part p following if. "hyPothesis"
2-2 Conclusion	The part q following then. "QonQlusion"
2-2 Truth Value	Whether a conditional is true (T) or false (F).
2-2 Converse	Exchange (switch / swap / reverse) the hypothesis and conclusion. Usually "if q then p" or "q → p."
2-2 Inverse	Negate (opposite) both the hypothesis and conclusion. Usually "if not p then not q" or "~p → ~q."
2-2 Negation	The opposite of the original conditional. The negation of p is ~p. The negation of ~p is p. The negation of "is orange" is "is not orange." The negation of "is not cold" is "is cold."
2-2 Contrapositive	Switch (reverse) AND Negate both the hypothesis and conclusion. Usually "if not q then not p" or "~q → ~p."
2-2 Conditional & Contrapositive	These share the same truth value. (If one is true, the other must also be true. If one is false, the other must also be false.)
2-2 Converse & Inverse	These share the same truth value. (If one is true, the other must also be true. If one is false, the other must also be false.)
2-3 Biconditional	Bi -- Both Directions. A single true statement that combines a true conditional and its true converse. Usually "p if and only if q" or "p iff q" or "p ↔ q"
2-3 Definition	True and reversible. Example: A penny is a coin worth one cent, and a coin worth one cent is a penny. No counterexample exists.
2-5 ∴	Therefore
2-4 Deductive Reasoning	Reasoning logically from given statements, facts, rules, or properties to a conclusion.
2-4 Law of Detachment	If "p then q" is a true conditional statement, and p is true, then q is true. Example: If it rains, then Joe will carry an umbrella. It is raining today. Therefore, ...
2-4 Law of Syllogism	If "p then q" is true, and "q then r" is true, then "p then r" is true. Similar to the Transitive Property. Example: If Jane is sick, she will be absent. If she is absent, she will miss her classwork. Jane is sick on Tuesday. Therefore...
2-5 Reflexive Property	a = a, or xyz = xyz
2-5 Symmetric Property	If a = b then b = a, or if 3 = x, then x = 3
2-5 Transitive Property	If a = b and b = c, then a = c. Similar to the Law of Syllogism.
2-5 Proof	A convincing argument that uses deductive reasoning.
2-6 Postulate or Axiom	An accepted statement of fact; does not require further proof.
2-6 Theorem	A conjecture which must first be proved true using postulates and/or already proved theorems.
2-2 Compound Statement	2 or more statements that are joined (as a conjunction or disjunction).
2-2 Conjunction	Joining of 2 or more statements with the word AND; written as "s /\ j"; only true if both are true.
2-2 Disjunction	Joining 2 or more statements with the word OR; written as "s \/ j"; true if either statement is true.