Glossary

Unit 3: Logic and Reasoning

Circular reasoning An incorrect type of argument where the conclusion is used to show the conclusion is true. "Alex wouldn't do that, because he is a good boy" is an example of circular reasoning.

Conjecture A statement that is consistent with known data, but has not been proven true or false.

Counterexample An exception to a conjecture. A counterexample shows that a conjecture is false.

Deductive reasoning Reasoning using general statements, or premises, to reach logically certain conclusions.

Inductive reasoning Reasoning using specific examples to form a general rule or conclusion.

Mathematical proof A mathematical argument that shows the certain truth of a statement.

Paradox A statement or argument that produces an inconsistency or contradiction.

Premise A statement that is assumed to be true.