Terms Review

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Summary

Alphabet	A finite set of objects called symbols
Argument	An input to a function
Binary relation	A relation whose domain is a set of pairs
Boolean operation	An operation on Boolean values
Boolean value	$TRUE$, $FALSE$ represented by 1, 0
Cartesian product	Operation on sets forming set of all tuples
Complement	Operation on a set forming set of elements not present
Concatenation	Operation that sticks together two strings
Conjunction	Boolean AND operation
Connected graph	Graph with paths connecting every two nodes
Cycle	Path that starts and ends with the same node
Directed graph	Graph whose edges are arrows

Summary, continuation

Disjunction	Boolean OR operation
Domain	The set of possible inputs to a function
Edge	A line connecting two nodes in a graph
Element	An object in a set
Empty set	A set with no elements
Equivalence relation	reflexive, symmetric, and transitive binary relation
Function	A mapping from inputs to outputs
Graph	A collection of nodes and lines connecting some points
Intersection	Operation of forming common elements of two sets
k-tuple	A list of k objects
Language	A set of strings
Member	An object in a set

Summary, continuation

Node	A point in a graph
Pair	A list of two elements, also called a 2-tuple
Path	A sequence of nodes in a graph connected by edges
Predicate	A function whose range is $\{TRUE, FALSE\}$
Property	A predicate
Range	The set from which the outputs of a function are drawn
Relation	Predicate, typically when domain is a set of k-tuples
Sequence	A list of objects
Set	A collection of objects
Simple path	A path without repetition
String	A finite list of symbols from an alphabet
Symbol	A member of an alphabet

Summary, continuation

Tree	A graph without cycles
Union	Operation combining elements of two sets into a single set
Vertex	A point in a graph