

Predicate Logic:

Main Terms:

Short-hand

Simple Statement

Singular Term

Predicate

Reference

Meaning

Syntax

Proposition

Translation

1. Predicate Logic is an intermediate to advanced language which accounts for subjects and predicates.
 - a. Practical Applications: Computer Programing and Legal Reasoning (LSAT)
2. Predicate Logic is a short-hand language
3. Predicate Logic begins by identifying simple statements.
 - a. SIMPLE STATEMENTS are either really true or really false.
 - i. This means that Simple Statements are propositions.
 - ii. A PROPOSITION is a statement which is either true or false.
 - b. SIMPLE STATEMENTS consist of Singular Terms and Predicates
4. SINGULAR TERMS
 - a. Represented by lowercase letters a-v
 - b. REFERS to a single object
 - i. Reference is the activity of picking out an object
 - ii. Reference should not be confused with meaning.
 - iii. Some words have empty references, like The Easter Bunny.
 1. Has a meaning, but doesn't pick out anything.
 - c. Examples:
 - i. I = "LeBron James"
 - ii. p = "The President of the United States"
 - iii. d = "That dog"
 - iv. c = "The cat"
 - v. o = "Otto's Car"

5. PREDICATES

- a. Represented by uppercase letters A-V
 - i. Predicated OF a Singular Term
 - ii. Assigns properties or descriptions to singular terms
 - b. Examples:
 - i. Rx: x is red
 - ii. Sx: x is sweet
 - iii. Bx: x plays basketball
 - iv. Dx: x is 4 wheel drive
6. Translating sentences into PL short-hand tracks the underlying shorthand of language.
- a. This is called syntax
7. Translations
- a. Start with regular english and move to PL.
 - b. Start with PL and move to regular english.

Questions:

Type of term is Madonna?

Type of term is "is a singer"?

Translations from PL to English

Key:

I = LeBron James

Bx : x plays basketball

Translate: BI

d = the dog

m = Mars

b = Bugs Bunny

Rx : x is red

Translate: Rd, Rm, Rb

m = madonna

Sx : is a singer

Ex : is an entertainer

Translate: Sm, Em

m = Maria Lugones

e = Elvis Presley

Lx : x studies logic

Rx : x is a rockstar

Translate: Lm , Re , Le , Rm

Translations from English to PL

These translations require a key to be stipulated

LeBron James is a basketball player.

Socrates is a philosopher.

The Eiffel Tower is in France.

Sarah's card is red

Clayton Kershaw plays for the dodgers