→ Subject & Predicate
in one stage

2 or more propositions

Statement: Declarative language → Only True or False
(Binary logic)

Two types of statements:

1. Simple = Only one statement.
Does not contain another statement as component.

2. Compound = Contains another statement as component

What is a component? A component:

1. Must be a statement itself
2. Should be replaceable by another statement

Example:
Simple = All men are mortal
Compound = All men are mortal AND all women are mortal

Statement / Logical connective
logical operator

Connects 2 or MORE statements
(statement exceptions)
Compounds can be connected

Truth functional compound statements

↳ has its own truth function compound statements / simpler statements as components

replacing simpler statements with another statement of same truth value, same Truth val of comp. statement.

Non truth ~~value~~ functional compound =

does not depends on truth value of its components

Eg: John believes Q

P depends on Q if John actually believes Q

Q's truth value doesn't matter, if the content is the same but its truthval is changed

P remains same

But if Q itself is changed but truth value is kept constant, P can change!

Therefore, Q is not a truth-functional component. P is not a truth-functional compound.

Statement 1 statement 2 Statement w/ connective