4 Types of Deductive Arguments

Modus Ponens

All A’s are B’s
This is an A
∴ This is a B

Real world example:

All Americans are rich (compared to people in the rest of the world);
George Bush is an American;
∴ George Bush must be rich.

Modus Tollens

All A’s are B’s;
This is not a B;
∴ This is not an A.

Real world example:

All Americans are rich (compared to people in the rest of the world);
Jane Doe is not rich;
∴ Jane Doe must not be an American.

Hypothetical Syllogism

If A, then B;
If B, then C;
∴ If A then, C.

Real world example:

If the people elect their own government, then the political system is democratic;
If the political system is democratic, then the economy is prosperous;
∴ If the people elect their own government, the economy must be prosperous.

Disjunctive Syllogism:

Either A or B;
Not A;
∴ B.

Real world example:

All humans are either male or female;
Jane Doe is not male;
∴ Jane Doe must be female.