AND, OR, and XOR

Suppose A and B are propositions (and hence are either true or false).
A AND B (i.e., $A \wedge B$) is True if and only if *both A* and B are true.
A OR B (i.e., $A \vee B$) is True if and only if *at least one of A* and B is true.
A XOR B (i.e., $A \oplus B$) is True if and only if *exactly one of A* and B is true.

Examples:

- All flying elephants eat pizza OR Staten Island is a borough in New York City
- All flying elephants eat pizza AND Staten Island is a borough in New York City
- All flying elephants eat pizza XOR Staten Island is a borough in New York City