1. Conditional rules are guarantees

Fundamentally, conditional statements are about guarantees. If you know that it is the case, then you get something for free. If you know something is not the case, then you get something for nothing. Any statement with a form like probably will yield a guarantee and be a conditional statement.

2. In an if statement, it cannot ever be true.

It’s not true that every conditional statement will be true, because there can be cases in which one of the conditions is false. This is why conditional statements are not always true.

3. Conditional rules can be linked

Very often, we are given multiple conditional rules that can be linked together — that is, the consequence of one conditional statement can be the antecedent of another. Two common ways of linking statements are: and, or. These compound statements are generally simple enough to understand, but you want to be careful because there are some nuances.

4. Conditional rules can be compounded

If you have two or more conditional rules that can be linked together — that is, the consequence of one conditional statement can be the antecedent of another — you can combine them. This is a way to compound conditional rules.

5. The true challenge of conditional logic is the wording

One way to determine whether a statement is true or false is to reword it. That’s typically what you have to do in conditional logic. The contrapositive is simple enough to understand, but remember that if the antecedent is true, you must be true to make the comparison. The false inferences for this original conditional would be

An integer can’t end with 2 unless it is even. Notice that we reversed the positioning of the original statements and negated both. This is the contrapositive of the original statement.

Every conditional statement tells us one additional fact — this fact is known as the contrapositive. Basically, the contrapositive tells us that if the result isn’t true, the trigger must not have been true as well.

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