

Woof!

Here are the rules for constructing WFFs (**W**ell **F**ormed **F**ormulae, get it?). A sentence that can be constructed by applying these rules one at a time is a WFF; a sentence which can't be so constructed is not a WFF.

1. A sentence letter by itself is a WFF:

A B Z

2. The result of putting \sim immediately in front of a WFF is a WFF:

$\sim A$ $\sim B$ $\sim\sim B$ $\sim\sim\sim B$ $\sim(A \vee B)$ $\sim(\sim C \bullet D)$

3. The result of putting \bullet , \vee , \supset , or \equiv between two WFFs and surrounding the whole thing with parentheses is a WFF:

$(A \supset B)$ $(\sim\sim C \vee D)$ $((\sim\sim C \vee D) \supset (E \bullet (F \equiv \sim G)))$

4. Outside parentheses may be dropped:

$A \supset B$ $\sim\sim C \vee D$ $(\sim\sim C \vee D) \supset (E \bullet (F \equiv \sim G))$

Main Connective: In constructing a WFF, the connective that goes in last, which has the whole rest of the sentence in its *scope*, is the *main connective*. You can think of this connective as the one which is at the highest level in the sentence or as the one which is the "furthest out."

Hints:

1. You can't have two WFFs next to one another without a two-sided connective between them.!

BAD! A B C \sim D (E \vee F) G

2. Two-sided connectives have to have WFFs attached to both sides.!

BAD! $\supset A$ (B \vee C) \supset ($\bullet D \equiv E$) G $\bullet \vee$ H

3. You can't have more than one two-sided connective at the same level!

BAD! A \bullet B \vee C $(\sim\sim C \equiv D) \bullet (E \supset F \bullet \sim G)$