Syntax Exercises II: Using the Formation Rules that define what it is to be a sentence of FOL, determine which of the following strings of symbols are sentences of FOL and which are not. Give step-by-step explanations like I did for the examples done in class that account for why a string is a sentence when it is, and why it is not a sentence when it isn’t.

1. \((\text{Larger}(A, B) \lor \text{SameRow}(A, C)) \land \neg(\text{SameShape}(B, C) \land \neg(\text{Cube}(A) \lor \text{Tet}(B)))\)

2. \((\text{H}(a, c) \land A) \lor \neg((B \land C) \lor F(c))\)

3. \((\neg\neg\neg\neg(\text{Small}(a) \& \text{Between}(a, b, c)) \lor (\text{Small}(b) \lor \neg\text{FrontOf}(a, c))\)

4. \((\neg\neg\neg\neg(\text{A} \lor \neg\neg(\text{B} \land \neg(\neg(C \lor B) \land \neg\neg(\text{D} \lor \neg\text{E}))))\)

5. \(((W(c, c, c, c, c) \lor \neg F(a)) \lor ((H(a, c) \land G(a, c, b)) \lor (\neg G(c, b, a) \land F(c))))\)