Instructions:
a) Identify if the statement has structure. If it doesn’t, mark it as being simple.
b) If the statement has structure, separate the sentence into its independent statements and connect them into one long statement using ‘and,’ ‘or’ and ‘it is not the case that’, and ‘if… then…’ filling in the pronouns for clarity.
c) Assign a capital letter to represent each independent statement.
d) Using only the capital letters from c) and the ampersand symbol (&), the wedge (v), the horseshoe (⊃), and the tilde (~), rewrite b).

Example Problem:
Neither Mike nor Rachel did their homework, if they went to New Orleans.
Example Answer:
If Mike went to New Orleans and Rachel went to New Orleans, then it is not the case that (Mike did Mike’s homework and Rachel did Rachel’s homework).
Let M = “Mike went to New Orleans.”
Let R = “Rachel went to New Orleans.”
Let N = “Mike did his homework.”
Let T = “Rachel did her homework.”
(M & R) ⊃ ~(N v T).

Example Problem:
Oranges grow well only if there is no late frost.
Example Answer:
If oranges grow well, it is not the case that there is a late frost.
Let O = “Oranges grow well.”
Let F = “There is a late frost.”
O ⊃ ~F

1. Roses are yellow if they are grown in Tulia, TX.
2. If we don’t have any birdseed, the birds won’t come.
3. Unless she is sick, Jenn is not going to miss the party.
4. If Wendy or Erica comes, she will clean up before the party. (Tricky one)
5. If Rick and Laura both don’t smoke, then we can have the party at their cabana.
6. Only if we bribe the mayor, will we get the big project.
7. Neither rain nor snow will stop Hal if he has all his gear.
8. If Sandra shows up, we’ll order pizza, but otherwise, we’ll order Chinese.
9. Trent won’t show up unless Bobby isn’t going to be there.
10. If Chris wrecks the sofa, then if we have a party, we won’t have enough chairs.
11. A ball is red only if it’s colored.
12. A relative is an aunt only if the relative is female.
13. I can go out tonight only if I get my paper written.
14. Without getting my paper written, I can’t go out tonight.
15. If I don’t get my paper written, I can’t go out tonight.