Exercise 3

Context , where , and , where is the set of natural numbers. That is, a member in is a set of all extensions of an infinite binary sequence restricted to the first n bits.

“No method can verify “infinitely many 0s” in the limit” means that there is no such B that eliminates false reasons and answers . That is, .

“Hint: let us “present data to B in stages 0, 1, 2, … in a way that forces B to retract its reasons infinitely often”. “

I don’t quite get the idea, why can we prove that no method can verify “infinitely many 0s” by retracting its reasons infinitely often?

The professor had given an example of retracting reasons infinitely often in class. Then he said he had just given us the answer of the exercise. But that is an example of eliminating false reasons while preserving the false answer. And the exercise asks us to prove that no method can verify “infinitely many 0s” in the limit. I am sorry that I still don’t know how to do the exercise.