**The Problem:**

The problem is that the teacher suspects some students of cheating on the test. To dissuade this she hands out three different versions of the test to students(unfortunately her method of distribution is flawed) and upon grading them finds that students who took the second version scored higher than the other two leading her(illogically) to conclude that this second version was ‘too easy’. Honestly I’m not sure what we are trying to justify here, that cheating needs to be stopped or that we need to make sure the test is difficult. What we know is that she did not hand out the test at random and that kids arriving on time(vs early or late) all received the same version and scored higher than A or C testers.

**The Potential Solution:**

Depending on what we are trying to accomplish(less cheating or harder tests) there are a few different solutions, I will discuss both. As far as less cheating goes, the different versions of the test are a fine way to go as long as they have the same questions. You can randomize the order of those questions so students can’t read off others sheets but if you two students the same question in different ways then you really do not have any comparable answers. As to the harder tests, this is where the different ways to ask a question factor in. While you need to be careful that you aren’t simply making test questions difficult for difficulty’s sake, making three different versions of a question and seeing how students respond to it will give you a good indication of how they interpreted and understood the thing being asked. This could potentially lead you to writing all of your future questions in the same manor and thus making the test a bit more complex and harder to read.

**The method of testing the Solution:**

Again depending on the solution you want there are different tests available. First we will look at how to stop cheating. Since I’m not really sure how to measure ‘level of cheating’ from test to test short of monitoring everybody’s eyes during the time I stand by the method above of randomizing the questions. This becomes even more effective if you have different types of questions(fill in the blank, true/false, written answer, etc) and can move those around to different pages so the test looks different to everybody. For the second method, I think the initial plan of three versions is still a good plan but you need to be very precise in handing it out to students. Maybe just two versions and split the class into two groups of students with equal grade distributions. The key is that the students in each group have performed relatively similar to one another in previous tests so any significant difference now can be attributed to the actual test and not the difference in the test takers.