

A Testing Program in Math 20

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"Why can't you all do well on mathematics tests?" With this idea I presented a new testing scheme to my students in Math 20 last year. Each chapter test was written in triplicate and was of 40 minutes duration. Each of the questions, which were not multiple choice, was on a different part of the work covered in the chapter. This method made for a more interesting test than one in which the same question is asked more than once - for example, finding the length of a line segment given the end points. Also, when discussing the retests individually with students, all their work is there and their difficulties can be readily found. The three tests were more or less identical in format. On a test on logarithms, for example, the question appearing three times could be as follows:

Find by logs $(\sqrt[5]{369})^2$, $(\sqrt{4.69})^3$, and $(\sqrt[3]{2300})^2$.

Students were permitted to write one or two tests on previous chapters until mid-term. Then we started again. Considerable weight was given to these tests as they constituted 60 percent of their final mark. When a student wrote a retest, he received this mark if (and only if) it was higher than a previous mark. Only the best mark was kept on record, all others being obliterated. With this plan the class average for chapter tests for the semester was 70 percent. The average for the final exam was 68 percent. There was, of course, no retesting for the mid-term or the final. All 24 students received 50 percent or more at the end of the semester.

The retesting program was well received by the students. I never suggested that they rewrite - it was entirely up to them. This is an extremely important feature of the program. Some students wrote to attempt to get 50 percent while others wrote to raise a 70 percent mark to over 80 percent. This continuous testing plan made for incidental reviewing, as some of the students would be rewriting a Chapter One test while we were doing Chapter Three, and so on. Another asset was that, if a student missed a test, he could hear the discussion of it the next day and then use one of the rewrites to get his mark.

Students were encouraged to write the extra tests during their study periods at school. Some did not wish to use this time that way, and some others had no spare time. In those cases I trusted them to write their tests at home. The test was put into an envelope, sealed, and my initials written across the flap. The test was returned to me in a second envelope which the parent had signed.

This semester I am carrying out this plan with my current Math 20 class. It takes time but is well worth the effort. Try it!