

Why Check by Casting Nines?

One of my greatest frustrations as a teacher of math was careless errors made by students who had demonstrated the understanding and ability to do the very problems they were missing. Math is exact. An incorrect answer is an incorrect answer, regardless of cause!

I was far more concerned about accuracy than were my students. How could I insist on high standards without being punitive or initiating a battle of wills? How could I get students to *want* to check their work, thereby improving their grades and increasing their enjoyment of math?

The answer came from my husband, Dennis, a veteran teacher with a special talent for teaching math. He taught me how to check by casting nines. I taught my students, and their scores on computation jumped dramatically and immediately. Students *like* casting nines, and see it as a sort of game or puzzle. I can require that all computation be checked, and it is easy to tell at a glance if it has been done. The time I invest in teaching this process is *especially* worthwhile because it can be used to check addition, subtraction, multiplication and division of whole numbers and decimals.

Freed from the drag of error-ridden papers and poor scores, we are able to move more quickly through the math curriculum, focusing on concepts rather than mistakes. Students have more fun with math and so do I!

This book of reproducible masters is to help you and your students enjoy these benefits with a minimum investment of time. You can learn the process by doing the worksheets right along with the students! Once *you* know how to check by casting nines, select just the worksheets you need for your grade level. Students can almost immediately apply this procedure to their regular work in math.

A couple of warnings: Students *must* have memorized their math facts in order to cast nines quickly and easily. Our series *Math Facts in Five Minutes a Day* can help with that (see p. 47 for ordering information). Also, casting nines is not a perfect method of checking. It will catch most, but not all, errors.