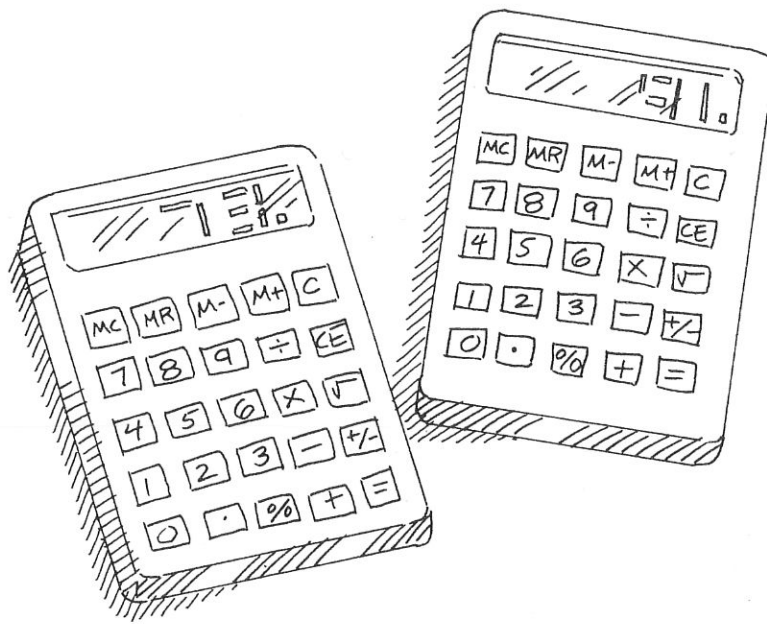# Grappling over Grades

"We've got an interesting e-mail message here, Will," Emma said. "Listen."

The message was from Mrs. Lopez and it was about her daughter Lucia. Emma summarized the message for Will. She explained that Mrs. Lopez had just returned from a meeting with Lucia's math teacher. The teacher said that Lucia had an average of about 73 in math. Lucia had told her mother that her average was 91. Lucia, Mrs. Lopez and the teacher both agreed, was not a liar.

"Does Mrs. Lopez give us any more information, for example, what Lucia's exact test scores were?" Will asked.

The answer to that was an e-mail away. Soon the sleuths had the data. Lucia's grades on seven math tests were 91, 56, 59, 84, 66, 91, and 65. All the tests contained the same number of exercises, and each exam was equally weighted by the teacher.

After a moment with his calculator, Will understood something about Lucia. "It seems that our Lucia is a C student with an A grasp of statistics. Her teacher should be proud, in a funny way."

"So it appears," Emma agreed. "I'll try to clear things up for her mother."

> What should Emma tell Mrs. Lopez about Lucia's math grades? Who's right about Lucia's test average? Explain.

Name _____   Date _____

? 8 ? 2 ? 4 ? 9 ? 6 ? 3 ? 1 ? 5 ? 1

Investigator's Log

Name of case _____

Restate the problem in your own words: _____

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What information do you have? _____

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What information do you need? _____

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What can you do to solve the problem? _____

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Solution: _____

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How do you know your solution makes sense? _____

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