



Making Meaning

by Alan Jacobs

Last spring Denise, who cuts my hair, told me about a trip she wanted to take with her family to a church camp in North Carolina. She wanted to drive, thinking this could be a memorable family adventure. But others in her church had found some pretty good prices on airline tickets. Denise was concerned about the cost and the total number of days for the trip. She confessed that she didn't know how to figure out which mode of travel would be best for her.

Denise shares many qualities with my students in Elementary Algebra. She has work experience and family responsibilities, but like many students Denise lacks the mathematical language with which to set up and solve quantitative problems.

Well, Denise' story now appears as an *Activity* (and a homework problem) in *Beginning Algebra with Arithmetic Review* because we want students learn mathematics they can use in their personal lives. And yes, we want students to learn mathematics to use in other college courses, at their places of employment, and even in their next mathematics courses.

But applying algebra to quantitative problems in other domains is difficult. To overcome this difficulty, we think that the mathematics has to make sense to the student. That is, it is a false victory if I get students to repeat the way I make sense of mathematics. It is a true victory if the students can make their own meaning of the mathematics. The *Activities* in *Beginning Algebra with Arithmetic Review* help students make sense of the mathematics because they consistently call for student explanation, interpretation, and judgment.

Simply said, students will use the mathematics they understand and have become comfortable with. We focus on developing students' mathematical concepts, because that's where understanding lies. Then we practice using the mathematics in a variety of settings to help students build a comfort level.

By the way, Denise and her family flew to North Carolina and had a memorable family adventure.

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