

Letter: from the Author

Dear Students,

Superman died this week. Not the one in the comic book. The real one, Christopher Reeve, age 52. Nine years ago he received a spinal cord injury during a horse riding competition. He was paralyzed from his neck down and had to learn to talk by breathing through a straw; but that didn't keep him from making public speeches, directing an award-winning movie or starring in another. He never quit exercising the muscles that he would need when the neurological cure for his injury was found and he never gave up hope. He was a real hero.

Now for a tale told by an English clergyman¹ in 1884 under the pseudonym A. Square, our hero.

At the turn of the millennium, in 1999, A. Square describes his encounter with a visitor from another dimension, or rather Three Dimensions. For him, as well as others who live in *Flatland*, it is difficult to envision more than two dimensions. It is against the law to think that there could be more.

Imagine his disbelief when Square is taken to Spaceland by the great Sphere. He is able to look down into *Flatland* and see his own house all in one view; not in parts, but as a whole. Everything is so clear to him from this new perspective.

He is also taken to the Abyss of No Dimensions and his Teacher the Sphere instructs:

Behold yon miserable creature. That Point is a Being like ourselves, but...He is...his own Universe... he knows not Length, nor Breadth, nor Height, for he has had no experience of them.....Yet mark his perfect self-contentment, and hence learn this lesson, that **to be self-contented is to be vile and ignorant, and that to aspire is better than to be blindly and impotently happy.**

Mr. Square tries to teach Point that there is so much more to learn about the Universe, but to no avail. Until at last his Teacher says that there is "nothing that you or I can do to rescue him from his self-satisfaction."

Having spent most of my career perfectly self-content with teaching my students only the AB Topics of AP[®] Calculus, there was nothing that anyone could do to rescue me from myself...until I began writing this book. What began as a small supplement to *Concepts of Calculus (AB)*² grew in direct proportion to my fascination with each BC topic.

I find that I, like Mr. Square, cannot go back into my old world-view without the perspective gained from the new. It is clearer now that I see certain topics as a whole (instead of one room at a time). As he said, "now my mind has been opened to higher views of things." I am converted, a rebel to the cause.

Which Dimension Do You Live In?

Students, if you are considering whether or not to learn those BC topics, I challenge you to try. I'll be right there with you in each lesson, helping you to think it through. One thing, though. Like any other sport, if you're going to play math, you've got to learn the rules. So learn each theorem and definition as you go.

"Inch by inch, it's a cinch. Yard by yard, it's hard."

And if you won't take my word for it, then listen to what Superman said shortly before his death as he went through his exercises:

I get impatient with people who are walking around able-bodied who are not fulfilling their potential. I say, "Come on, come on! Go for it!"

With my sincere wishes for a fabulous journey,
Brenda Batten
October 16, 2004

¹ Abbott, Edwin A., *Flatland A Romance of Many Dimensions*. Dover Publications, Inc. New York, NY. 1992.

² Batten, Brenda. *Concepts of Calculus: Exploring AP[®] Calculus with the TI-89*. William K. Bradford Publishing Company, 2004.