The Permanence of Learning

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"Aren't you afraid of making mistakes?" The question hung in the air of my first Calculus III class, posed by a well-meaning classmate who'd noticed I was using a gel pen. The question caught me off guard; not because I hadn't considered it before, but because I had never needed to articulate my answer out loud. That question has lingered in my mind every time I reach for my pen in my math classes, deserving a deeper answer than I could give that morning. Now, I think I finally have one.

Here's the thing about pens: they're honest in a way pencils never can be. In a world where our digital mistakes vanish with a single keystroke, and our penciled errors disappear beneath pink rubber, pens offer a refreshing permanence. They don't just record our math journey—they preserve it, wrong turns and all. Each crossed-out equation stands as evidence of the messy process of learning.

Last year, I decided to give pencils a fair chance. Convinced that my preference for pens might stem from not having found the right pencil, I fell down the rabbit hole of Japanese and German stationery, marveling at their meticulous design and thoughtful engineering. I spent hours reading reviews, watching YouTube videos, and testing everything from the self-sharpening Uniball Kuru Toga to the precisely engineered Rotring 800. Yet, after all that research and spending more money than I'm willing to admit, I found myself reaching for the same Sharpie S-Gel that started this journey.

The reason isn't just about the tool itself — though I do love the smooth flow of ink and the crisp, clear lines that mirror logical steps. It's about what using a pen represents. In every math class until college, we were told that pencils were the only acceptable tool. Using a pen was an act of rebellion, like questioning a fundamental law of education. But college brought a liberating revelation: professors cared about the clarity of our thinking, not the medium of our calculations. They would have accepted work in crayon if it demonstrated understanding.

This freedom led to an unexpected discovery. Using a pen means accepting — even preserving — our mistakes. Each crossed-out equation reminds us of a lesson learned, a reminder that understanding math isn't built on pristine pages of perfect solutions but on the foundations of our corrected errors. When I look back through my engineering notebooks, these "mistakes" often contain the seeds of alternative approaches that proved valuable later.

The ballpoint pen is, by most measures, a rather mundane item. Mine costs less than a dollar and can be found in nearly any store in America. Yet in its simplicity lies its beauty. It doesn't try to hide its imperfections or make the journey seem easier than it was. Instead, it chronicles both our successes and struggles in permanent ink.

So no, I'm not afraid of making mistakes with my pen. In fact, that's precisely why I choose it. In math, as in life, our mistakes aren't things to be erased and forgotten. They're what lead us to deeper understanding, helping us recognize the right path when we find it. My pen doesn't just write equations, it tells the story of how I came to understand them.