1,387,584,000 Seconds

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I will never forgive Mrs. Litzing, my seventh grade pre-algebra teacher for failing to inculcate in me a love for algebra. Until her class, I loved numbers and equations. When I was in third grade, Mrs. Redick had simple arithmetic problems written on the chalkboard every morning when we arrived, problems for us to work on before school officially began with the ringing of the opening bell. Arithmetic conundrums written with such precision that their siren call was irresistible; I couldn't wait to get started on them. I would fling my coat on its peg in the back of the room and ram my Roy Rogers lunch box in my cubby, determined to be the first one in the class to take out a clean sheet of notebook paper, a ruler, and a freshly sharpened pencil and get to work on these lofty but solvable problems. I took great care to make my lines as straight and uniform as it was humanly possible to make them, to form the numerals with such meticulous curves and angles as to approach perfection, to align the columns of numbers with the care of a surveyor, and finally, to solve each and every problem correctly the *first* time--without benefit of erasure or scrap paper. This numerical thrill-seeking carried over into the fourth grade, where I was to learn the polemic I still use today to help me remember how to spell arithmetic: A-RAT-IN-TOMMY'S-HOUSE-MAY-EAT-TOMMY'S-ICE-CREAM. Arithmetic, arithmetic, beautiful arithmetic! I was hopelessly, passionately, embarrassingly in love with numbers.

Then, somewhere between the beginning of fifth grade and Mrs. Litzing's opening salvo on the first day of seventh grade, *Arithmetic* morphed into *Math.* To my malleable, teacher-pleasing mind, this was the equivalent of transferring from Bucksnort Community College to, say, Princeton. It was a change I hadn't seen coming. And while I inwardly longed for the modest carefree days of simple addition, subtraction, multiplication, and division, I told myself that what lay ahead in pre-algebra promised to be as exciting as the Apollo moon missions. My mind was on fire; I couldn't wait!

Mrs. Litzing managed to put the fire out in two days. How she managed to do it is a matter of personal history, but suffice to say that I never took an interest in numbers again . . . not to the degree I had in grade school, anyway. It was the Apollo moon missions that indirectly kept the embers glowing in the back of my mind, and Dr. Carl Sagan years later with his *Cosmos* series on PBS who opened my eyes once again to the wonders of numbers. Between the opening day with *heir* Litzing in the seventh grade and early adulthood, the closest I dared approach a math problem was my checkbook. That, and sitting of a clear autumnal evening trying to count the stars.

It has been 1,387,584,000 seconds-- 44 years, give or take a few seconds -- since I truly enjoyed a number. And this is my regret: in my heart of hearts, I think I am still in love with numbers, but I am inept. I cannot woo a mathematical equation, nor it me. I can only admire a complicated formula from afar. But as a father takes a certain amount of pride in watching his son ask a girl out on a date for the first time, my heart is newly warmed as I watch my younger son Brooks take on pre-algebra at eleven years old the way I once took on simple addition: fearless, confident, undaunted. The numerical irony of that, I suppose, is that I was 44 years old when Brooks was born.

So, for those of you who, like me, perhaps once loved numbers and variables and now cower in their presence, I offer hope. As I read books about astronomy and the invisible world of subatomic particles, about the number of stars in the Milky Way and the number of known galaxies, about the number of electrons that could fit on the tip of safety pin (roughly, 10 followed by some ridiculous quantity of zeroes), I am buoyed. I am much more respectful toward numbers now than I have been for a very long time. Numbers mean something to me again.

Allow me to reintroduce you to an old friend, in a slightly new way. We hear three numbers in the news almost daily, so often in fact that most of us have no respect for them anymore. The numbers? *Million. Billion. Trillion.*
Wrap your mind around these three bad boys. And if you doubt the figures, may I respectfully suggest you check my math:

1 million seconds = 11 days, 14 hours (+/-)

1 billion seconds = 32 years (+/-)

1 trillion seconds = 29,000 years (+/-)