

# **Who's Counting? A Layman Looks at Leap Year**

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*Publication Date:  
Spring 96 - Volume 27 #2*

*Document ID: AKERS001*



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I had already done the Lower Math myself, back at the house, with my user-friendly ballpoint; working slowly, methodically, the skills a little rusty, skills, because, after all, it's only once every four years. Let's see now: 4 goes into 19 about 4 times; put down the 16, carry the 3; 4 into 39 ...It checked out. 1996 is a Leap Year all right. It's here. And not a moment too soon either.

It borders on the incredible. Julius Caesar, then CEO of the Roman Empire, mandated a major Calendar change in 46 B.C. Pope Gregory XIII did no less for the Holy Roman Empire by defining, as it were, that what had heretofore passed for October 5th was now October 15th. That was then. But now? In this age of the nanosecond? With drivers that honk and operators who put you on hold --- just like that! To live in amicable denial with a Calendar off by some 5 hours, 48 minutes, and 40 seconds a year? Then this sporadic effort to make it all better by taking on an extra day, with the cavalier explanation that, whereas, yes, well, of course, as any properly programmed child can tell you, all the other months have 30 or 31 days, save February:

“Which has twenty-eight is fine, Till Leap Year gives it twenty-nine.”

Actually the pattern is familiar enough, sloppy, efficient, the way I get my checkbook to balance. But there maybe something deeper here, something far beyond our poor power to add or subtract.

The Western soul has had this fascination with Number. Its purity. Its power. “Number is Beauty. Number is Wisdom”, said Pythagoras. “Number”, he said, sounding like the Vince Lombardi of his day, “Number is Everything!”. Quite logically did Plato prescribe mathematics (including music) as the best training for the contemplation of the essences of things, those perfect immaterial Forms “laid away in the heavens”. Descartes' reduction of material being to Quantity; Newton thinking to discover through mathematics the very mind of God. Deists admiring the great Clock-Maker, and then ever more enlightened, dispensing with His services: a perfect clockwork world in need of no further tinkering. Hume urged that any writings which contained neither number nor quantity should be consigned to the flames --- in a bit of writing, it will be noted as he apparently did not, that itself contains neither number nor quantity. Later physicists convinced that knowing exactly the position and motion of every particle, we could play the history of the universe forward or backward; even, theoretically, unringing the chime.

It is the oldest problem in Philosophy --- and now, increasingly in the Sciences. It is related in its way to the problem of the One and the Many, Deduction and Induction, Idealism and Empiricism. It is at root the Critical Problem, the Epistemological Problem, It might even be expected that the “Platonist” in each of us might have a natural distaste for the multiplicity, variety, individuality, untidiness of things as we find them, It has not been an altogether pleasant experience to learn, over the centuries the stars are not perfect orbs harmonizing the music of the spheres; that our own earth, slightly thick around the middle, travels a eliptoid orbit. And wobbles. Whether or no this is a “perfect world”, it is certainly not a mathematically simple world. And despite little discrepancies (like Leap Year), we continue to find the fault, not our Math but in our imperfect stars that we are, well, irregular.

It is the glory and limitation of our kind of intelligence that it knows by abstraction. And because Mathematics is a most trusted tool of the most empirical, experimental, “hard” sciences (and progressively that the Social, Behavioural, and “wannabe” sciences) we can easily see that mathematics is a language, a logic, an abstract symbol-system deal with abstractions; that its power, purity, predictability, its exactness certitude --- and appeal --- derives largely from leaving out all that wondrous variety, uniqueness, incalcitrance, that “individuated matter” of the philosophers, all that explains (or rather, can't explain), why no two snowflakes are identical, nor twins, nor two feet on one twin, nor the two halves of the one twin's face.

And like many a misguided love disappointment bred of false expectation can lead to rather weird (compensatory?) behaviour. Some of which we see in lofty places. “Probability” (really the abstraction of an abstraction) a fine mathematical tool for handling limited samplings of stuff we don't know more about, becomes a Theory, a Law, a Philosophy of Randomness. An infinity (byneigh) of interacting infinitesimals (the butterfly wing that triggers a glacial age), that makes life a living hell for your favorite Weatherman, becomes

“Chaos” --- not a humble description of our heroic little efforts to plot the wheeling systems (or the curve of Judy’s nose, for that matter) --- but a Metaphysic, the ultimate law of Reality. Chaos is come again, and its sorry message is: There is no Law, no Causality, no Rhyme or Reason; no Science, therefore, and of course, no Math.

It’s all the academicians needed. The last bastion of objectivism fallen. “Just as we’ve been saying”, they say (and they seem to have little else to say): All is construct, conditioning, temperament, mindset, lenses, perspective. All is time-and culture-conditioned. All is relative. There is nothing “out there.” There is no “truth” in any traditional sense. There is only, finally and at long last, the great and noble task of Deconstruction, the ultimate agnosticism. Maybe Leap Year is there to remind us that if numbers don’t lie, they don’t tell the whole truth either.

By this time I’m standing on a rocky jetty by the Inlet, facing East, with nothing out there but the uniform blackness of Night and Ocean, and the first faint lightening of the pre-dawn sky. I wait and watch. Until the clouds behind me take on tints too subtle to name, and the firmament above separates from the waters below, and the land from the sea. And suddenly a spark, a flare, and a fiery wall of serrated cloud ignites across the horizon. And the barest tip of the sun peaks over the rim. As it has, lo, these five billion years of days, in extravagant, solitary, throwaway splendor.

“Right on time”, calls the lone fisherman as he always does; checking the sun’s arrival with his Timex, like an oldtime dispatcher. But this morning I think to draw him into the Dialog.

“Isn’t that sort of putting the cart before the horse?”, I shouted.

He cupped his hand to his ear above the yellow slicker. I tried again. He shook his head.

“The clock before the cock...” I shouted as loud as I could. But it was lost in the swirl and bubble of the moon-loving high tide. I am assured by the tables in *Fisherman’s Friend* that the tides themselves apparently have to meet a very demanding schedule.