

EDITOR'S CORNER

515-My Favorite Number

As scientists, we work under the scientific principles which require that everything must occur with logic and rationale. All experiments must have valid hypotheses, correct experimental protocols, appropriate material and methods, meticulously collected results, sound statistics to analyze the data, and keen observations to make correct conclusions to generate new and valuable information to advance the discipline. No questions about that!

In our own daily lives, however, things may not follow that principle at all times. We all have our own idiosyncrasies in the things we do, a lot of times without logic or rationale. It is difficult to pin-point why we like a certain color, food, music, religion, car, and, especially a certain person. Take numbers as an example. In Western societies the number "13" is considered by some to be unlucky. That is the reason why there is no 13th floor in many tall buildings. In Eastern societies, especially Japan the number "4" is unlucky because in native tongues "4" sounds like "Death." So many tall buildings do not have a fourth floor. Taken to the extreme, there is a hotel owned by an Oriental on the West Coast which does not have the fourth floor and the thirteenth floor. Really illogical but it happens all the time.

For me, though, the magic number is 515. I was born on May 15 a million years ago and since childhood have been following this number in many things I do. I like 5, 15, 51, 515, 155, and 551. When these numbers appear in my life, I feel great for no reason at all.

I came to the USA and was assigned a room in Craig Hall at the University of North Carolina at Chapel Hill. The number was 515. When the postal service started to develop zip codes, they gave Chapel Hill the number 27515. I was offered admissions to five (5) universities for my Ph.D. program. I chose Iowa State University because the telephone code in Iowa was (515). Iowa State is a fantastic university, anyway. When I was interviewed for a position in the Department of Animal Sciences and Industry at Kansas State University, I presented my seminar on my birthday(5/15). When I got the job the total number of full time equivalents in the department was 515 after my appointment.

Some of my most successful former graduate students have 515 combinations in their student number. One was born on 5/15 and her student number starts with 551! Word got around in my laboratory that if a student wants something from Fung ask for "500", or better still ask for "515", anything, especially money. One more interesting episode, the departmental accountant came to my office and asked for the dimensions of my office, which I did not know. After borrowing a ruler I found that it was 15' × 15', which is 225 square feet. My office happens to be 225 Call Hall. Now I know why I am destined to be in this office!!

You probably think I am a bit silly about these coincidences, but numbers can be fun. For example, did you know that -40C is the same as -40F ? Zero degrees F is -17.77C , quite near the independence year of the USA. That 5F is -15C (another 515!). For those living in Manhattan, KS the area code is 785, and one gallon of Liquid is 3.785 liters. Folks here will never forget that conversion.

Well, are coincidences really coincidences? Not really. When I go into a city like New York, Washington, DC or L.A. invariably, I will see a lot of Chinese restaurants. That is because I am Chinese. An Italian may see a lot of Italian restaurants. People are conditioned to see what they want to see. If you are interested in antique shops, you will find a lot of antique shops in Manhattan, KS. I have never seen one because I have no interest in antiques.

Now, there is actually some mathematics involved in coincidences. For example, to have a 50% chance that at least two people have the same birthday, how many people must be in the same room? The formula to calculate this is $1.2 \times \sqrt{c}$, where c is the number of coincidence. So the answer is $1.2 \times \sqrt{365} = 23$ (assuming there is no leap year). Next time you are in a party with 23 people, or more, there is a 50% chance that two people will have the same birthday!! This is a simplified equation of Stirling Approximation of Factorial Function. I had a great discussion on this with my son, Dr. Francis Y.C. Fung, who holds a Ph.D. degree in Math from Princeton.

Using the same formula we can calculate the 50% chance of someone with the same 4 figure pin number as you do. Since pin numbers go from 0000 to 9999, let us assume the coincidence number, c , is 10,000. So for every 120 pin numbers there is a 50% chance that two numbers are the same: $1.2 \times \sqrt{10,000}$. Your secret pin number is really not that much of a secret! Incidentally, on my little pocket calculator there is a $\sqrt{\quad}$ function that I had no idea what to use it for. Now I can use it to calculate coincidental events in my life.

Good luck with your favorite number. I am going out to buy a lottery ticket with "515" on it.

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