

Franklin Tidbits



Franklin cartoon offered for sale:

The famous "Join or Die" cartoon, which Franklin published in 1754 in the *Pennsylvania Gazette* is a rarity. Only about six research libraries have a copy of the original printing. Until recently, a private museum in Camden Yards, Baltimore also displayed a copy of the cartoon. On September 13 this copy was auctioned off in Beverly Hills, with an estimated value of \$100,000.

Musical Inspiration: The hydrocrystallophone, a musical instrument inspired by Franklin's glass armonica, was featured on the popular web site, hackaday.com.

Franklin on youtube? You probably have seen Benjamin Franklin dolls before, but this one talks—for about 4 minutes a recording of Franklin's most famous sayings plays when triggered.

Historical Sound: Recently, an historic preservation controversy arose when a plan to melt down the bells of Notre Dame Cathedral in Paris was announced in preparation of the 2013 celebration of the cathedral's 850th anniversary. The bells, most of which were cast in the 19th century, had fallen out of tune. In Franklin's time, the cathedral had 20 bells, and all but one were melted down to make cannons during the French Revolution. The one that remains from Franklin's era, is the 1681 "Bourdon Emmanuel" bell, which rings only on major occasions. The hope is to restore the original 17th-century layout of the bells and recreate the "ancient harmonics" with new bells, designed to produce the same notes. It is hoped that the newly configured bells will ring as they did during the Ancien Régime, when Franklin would have heard them. The restoration will bring a deeper resonance and lower tone than the bells have today.

What is the difference between intelligence and genius? See Walter Isaacson's reflections on Steve Jobs and Benjamin Franklin. *New York Times*, Oct. 30, 2011.

The Franklin Number and Other Numerical Oddities in Ben Franklin's Life

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The Franklin number: In a recent article titled, "More 17's in Ben Franklin's Life," published in the *Franklin Gazette*, Volume 21, Number 2, pp. 7-8, Summer 2011, I provided many examples of number 17's appearing in Ben Franklin's life. Also, I reported that if one assigns numbers to the letters of the English alphabet as A = 1, B = 2, ... and Z = 26, amazingly, the numbers corresponding to the letters of Franklin's first and last names each add up to an integer multiple of 17. In addition, I pointed out that the sum of the numbers assigned to his full name "Benjamin Franklin" equals 153 (which equals 9×17) and I coined this number as "the Franklin number" for the following reasons:

- If Franklin's death year 1790 is split in the middle as 17 and 90, 17 times reverse of 90 (which is 09) equals 153;
- The product of the digits of 153 equals 15 and the reverse of 15 is $51 = 3 \times 17$. Interestingly enough, the sum of the squares of the digits of Franklin's birthday January 17 expressed as 117 also yields 51.
- Amazingly, the reverse of leftmost two digits of 153 (which is 51) and its rightmost digit 3 also satisfy $51 = 3 \times 17$.
- The sum of the cubes of the digits of number 153 yields back 153!

Since then, I have discovered other fascinating properties of number 153 and its numerical connections with Franklin's birthday 117 which further advocates my choice of the number 153 to be named after Franklin:

- The reverse of number 153 is 351 and $351 = 3 \times 117$. Wow!
- If number 153 is split as 15 and 3, the squares of these two numbers add up to $234 = 2 \times 117$. It's like magic, isn't it?
- Also, as an aside, the sum of the digits of number 153 is 9 and 9×17 yields back 153!
- Two more reasons why the Franklin number is indeed a special number: If 351 (which is reverse of 153) is split as 3 and 51, 3×51 yields back 153! Also, if 351 is split as 35 and 1, the difference of the squares of these two numbers is 1224 which equal 8×153 . Unbelievable!

Franklin's 305th birthday and the 305th prime year coincide: Note that Franklin had his 305th birthday in the 305th prime year 2011, a fascinating coincidence!

Franklin turns 111,111 days old in 2010: After his 304th birthday in 2010, on 4-03-2010 (April 3, 2010), Franklin turns exactly 111,111 days old. (That is, if he were still alive, 4-03-2010 would have been the 111,111th day in Franklin's life.) Interestingly enough, notice that 403 representing April 3rd and Franklin's birthday number 304 are reverses of one another. Turning 111,111 days old is a unique special age to reach in one's afterlife and it requires roughly about two and a half months more than 304 years after the person's birth date. Another famous person who turned 111,111 days old recently on 30 June 2011 (30-06-2011) is Swiss mathematician Leonhard Euler (15 April 1707-18 September 1783).

Franklin's early age in 2012: At the beginning of next year (2012), between January 1 and 16, Franklin will still be 305 years old and amazingly, there is a secret numerical connection between numbers 305 and 2012. One fourth of 2012 equals reverse of 305!

Franklin's 306th birthday in 2012: As I reported earlier, Franklin's 306th birthday to occur on January 17, 2012 is a very special birthday simply because 306 equals twice the Franklin number 153! Also, 306 can be uniquely expressed in terms of number 17 as $17^2 + 17$! In addition, if 306 is split as 30 and 6, the difference of the squares of these two numbers yield 864 which is twice 432 where the reverse of 432 is $234 = 2 \times 117$. Amazing!

I hope that my recent numerical findings related to numbers in Franklin's life serve as a vehicle to attract more attention to his life and achievements. No question, he was a one-of-a-kind individual with multiple facets and interests and his contributions to the well being of the human society are myriad. Happy 306th birthday, Franklin, and thanks for continuing to serve as a role model for generations to come!