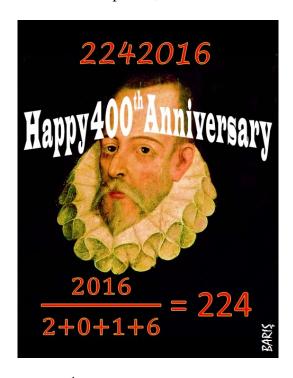
A Numerical Tribute to Cervantes on the 400th Anniversary of His Death

Aziz Inan and Baris Inan, Electrical Engineering University of Portland, Portland, Oregon April 22, 2016



Today, 22 April 2016 marks the 400th anniversary of the death of the greatest writer in the Spanish language Miguel de Cervantes [1]. His brilliant novel Don Quixote, which consists of two parts, is considered to be the first modern European novel selling over 500 million copies worldwide. In 1605, the immediate success of the first part made Cervantes famous and ended his poverty. The second part was published ten years later in 1615 shortly before his death.

Cervantes was born in Alcalá de Henares, Spain and although his exact birth date is unknown, based on church records it is accepted to be 29 September 1547. He died on 22 April 1616 in Madrid, Spain at age 68 due to type 2 diabetes caused by cirrhosis of the liver.

As a tribute to this great writer on the 400th anniversary of his death, we constructed the following numerical brainteasers:

- 1. If the date of the 400th anniversary of Cervantes's death expressed as 22-4-2016 or simply as 2242016 is split into 224 and 2016, 2016 divided by the sum of its digits result in 224.
- 2. Further, one-tenth of the sum of 224 and 2016 yield back 224.
- 3. Additionally, if the 400^{th} anniversary date of Cervantes's death expressed as 22042016 is split into 2204 and 2016, the reverse of the sum of these two is 0224 = 224! Wow!
- 4. If the 400th anniversary date 22042016 is split into 22, 04, 20, and 16, these four numbers add up to 62 which also equal the sum of the leftmost and rightmost halves of 1547, the birth year of Cervantes.

- 5. The product of the digits of 224 (22 April) yields 2x2x4=16 and two 16's put side by side make 1616, the year Cervantes died.
- 6. Cervantes died on the 113th day of leap year 1616 on 2241616 where 113 minus one times 2 equals 224 (22 April). The 400th anniversary of his death also coincides with the 113th day of 2016 since 2016 is a leap year too. In non-leap years, 22 April is the 112th day of the year where twice 112 yield 224.
- 7. If numbers 1 to 29 are assigned to the letters of the modern 29-letter Spanish alphabet, twice the sum of the numbers assigned to the letters of Quixote's new Spanish version written as *Quijote* equals 224! Isn't this a fun coincidence?
- 8. Moreover, if the 400th anniversary date of Cervantes's death expressed as 22042016 is split into 2204 and 2016, these two differ by 188. Note that the personal name of the famous fictional hidalgo and knight known as Don Quijote in the novel written by Cervantes is Alonso Quijano and interestingly enough, the numbers assigned to the letters of *Alonso Quijano* add up to 188. Doesn't this coincidence make the 400th anniversary date even more special?
- 9. Also, the sum of the numbers assigned to the letters of *Quijano* equals 100 which also equal the sum of the squares of the digits of 68, the age Cervantes died.
- 10. Cervantes's 444th palindrome-number birthday coincided with palindrome year 1991.
- 11. Lastly, this year marks the 400th anniversary of Cervantes's death where 4 times the sum of 400 and its reverse (004) result in 1616, the year Cervantes died.

Happy 400th anniversary of Cervantes's death!

[1] Miguel de Cervantes, Wikipedia https://en.wikipedia.org/wiki/Miguel_de_Cervantes

Aziz Inan is an electrical engineering professor at University of Portland. Aziz Inan can be reached at ainan@up.edu.

Baris Inan graduated from University of Portland at the end of Fall 2015 with a degree in Electrical Engineering and a Minor in Spanish. He can be reached at inan13@up.edu.