

## Numerical Brainteasers For Justice Antonin Scalia on What Would Have Been His 80<sup>th</sup> Birthday

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March 11, 2016



Antonin Gregory Scalia, born on March 11, 1936 and died last month on February 13, 2016 at 79, was an Associate Justice of the Supreme Court of the United States from 1986 until his death [1]. Today 27 days after his death marks Justice Scalia's 80<sup>th</sup> birthday and in his honor, I prepared the following numerical birthday brainteasers:

1. Scalia's birth year was a square year since 1936 equals  $44 \times 44$  and coincidentally, he died on the 44<sup>th</sup> day of 2016.
2. If numbers 1 to 26 are assigned to the letters of the English alphabet, the sum of the numbers assigned to the letters of *Antonin* and *Scalia* are 87 and 45 respectively and 87 plus 45 equals 132 representing *Antonin Scalia*. Note that 132 also equals 3 times 44.
3. Number 132 (*Antonin Scalia*) also represents 13-2 in the day-month calendar date format coinciding with 13 February, the day Scalia died this year.
4. The reverse of 87 (*Antonin*), namely 78, times 4 equals 312, which when reversed yields 213 representing February 13, again, the day Scalia died this year.
5. Further, 213 (February 13, the day Scalia died) equals 3 times 71 and interestingly enough, the 71<sup>st</sup> day of this year is 3-11-2016, coinciding with Scalia's 80<sup>th</sup> birthday.
6. Also, 1 plus 311 (Scalia's birth date) yields the reverse of 213 (the day he died).
7. An interesting numerical connection exists between Scalia's new birthday number 80 and his birth date 311 (March 11). How? The 80<sup>th</sup> prime number is 409 and the reverse of 409, namely 904, divided by the reverse of 80, namely 08, equals 113 which when reversed results in 311.
8. Scalia died at 79 where the sum of the digits of 79 coincides with the rightmost two digits of 2016. Moreover, the product of the digits of 79 equals 63 which equals 02 plus 61 where the reverses of 02 and 61, namely 20 and 16, put side by side make 2016. Additionally, the sum of all integers from 1 to 63 equals 2016.
9. Scalia turned palindrome age 55 in palindrome year 1991 where if 1991 is split in the middle as 19 and 91, half of the sum of these two numbers equals 55. Also, Scalia turned palindrome 66 in palindrome year 2002 and his birthday number will be twice 88 in the next palindrome year 2112. Note that twice 88 also equals 79 (the age Scalia died) plus its reverse 97.

10. Additionally, 79 is the 22<sup>nd</sup> prime number where 22 is also a palindrome number. Also, Scalia's birth year 1936 equals the square of palindrome 44 which is twice 22.
11. Scalia's 88<sup>th</sup> birthday to occur in 2024 is interesting because if 2024 is split as 20 and 24, these two numbers add up to 44 which is half of 88, and  $44 \times 44$  equals 1936, Scalia's birth year.
12. Scalia's 89<sup>th</sup> birthday coincides with square year 2025 which equals  $45 \times 45$  where 45 represents *Scalia*. Also, if 2025 is split as 20 and 25, these two numbers add up to 45 too.
13. Scalia's 98<sup>th</sup> birthday in 2034 can be written as 3112034, where 2034 equals 18 times 113, where the reverse of 113 is 311 (March 11).
14. Scalia's 113<sup>th</sup> birthday in 2049 written as 3112049 will be special since reverse of 113 is 311 (March 11).
15. Eighty years after his 80<sup>th</sup> birthday today, Scalia's 160<sup>th</sup> birthday expressed in day-month date format as 11-3-2096 will be a perfect square date since 1132096 equals  $1064 \times 1064$ .
16. Scalia's 177<sup>th</sup> birthday in 2113 expressed as 3112113 will be a palindrome day.
17. Lastly, Scalia's 200<sup>th</sup> birthday in 2136 is a perfect cube date since 3112136 equals  $146 \times 146 \times 146$  where the difference of the prime factors of 146 yields  $73 - 2 = 71$  and 71<sup>st</sup> day of 2136 coincides with Scalia's 200<sup>th</sup> birthday, 3-11-2136.

Happy 80<sup>th</sup> birthday to Justice Antonin Scalia!

[1] Antonin Scalia, Wikipedia

[https://en.wikipedia.org/wiki/Antonin\\_Scalia](https://en.wikipedia.org/wiki/Antonin_Scalia)