

## Happy 62<sup>nd</sup> Birthday, Oprah Winfrey!

Aziz Inan, Electrical Engineering  
University of Portland, Portland, Oregon  
January 29, 2016



Oprah Gail Winfrey  
(Born: January 29, 1954, in Kosciusko, Mississippi)

Oprah Gail Winfrey (born on January 29, 1954) is an American media proprietor, talk show host, actress, producer, and philanthropist [1, 2]. Today, January 29, 2016 marks her 62<sup>nd</sup> birthday and on this special occasion, I constructed the following numerical brainteasers as a birthday gift for her:

1. If Oprah's 62<sup>nd</sup> birthday is expressed in day-month-year date format as 29-1-2016 or simply as 2912016, this number equals  $2 \times 2 \times 2 \times 2 \times 3 \times 19 \times 31 \times 103$  where the sum of the prime factors is 158. Coincidentally, if numbers 1 to 26 are assigned to the letters of the English alphabet, A as 1, B as 2, C as 3, etc., the sum of the numbers assigned to the letters of *Oprah Winfrey* also equals 158.
2. If Oprah's 62<sup>nd</sup> birthday expressed as 1-29-2016 is split into 1, 29, and 2016, these three numbers add up to 2046 which equals  $2 \times 3 \times 11 \times 31$ . Interestingly enough, the sum of the prime factors of the reverse of the sum of the squares of the prime factors of 2046 results in 291 which in day-month date format is Oprah's birth date, 29 January.
3. The sum of the prime factors of 2046 (that is,  $1 + 29 + 2016$ ) is 47 and 47 square equals 2209, which if expressed as the sum of numbers 1994 and 215, these two numbers intertwined yields Oprah's birthday 1291954.
4. The reverse of 2016, namely 6102, equals  $2 \times 3 \times 3 \times 3 \times 113$  where the sum of these prime numbers is twice Oprah's new age 62.
5. Oprah's new age 62 equals  $2 \times 31$  where these two prime factors differ by 29, the day number of Oprah's birthday.
6. Oprah's birth date January 29 expressed in the day-month date format as 29-1 or simply as 291 equals  $3 \times 97$  where the sum of these prime factors is 100. Coincidentally, the sum of the numbers assigned to the letters of Oprah's last name *Winfrey* also equals 100.

7. Oprah's birth year 1954 equals 2 times 977 where the sum of these two prime factors equals 979 which equals 11 times 89 where primes 11 and 89 also sum to 100 (*Winfrey*).
8. The difference of the prime factors of 1954 is  $977 - 2 = 975$  which equals  $3 \times 5 \times 5 \times 13$  where these four prime numbers add up to 26 and reverse of 26 is Oprah's new age 62.
9. Twice the sum of the digits of Oprah's birthday 1-29-1954 also equals 62.
10. Oprah's 65<sup>th</sup> birthday expressed as 01-29-2019 or simply as 01292019 is numerically special because if split in the middle into 0129 and 2019, these two numbers are made of the same digits. In addition, the sum of the prime factors of 2019 yields  $3 + 673 = 676$  which equals the square of the reverse of Oprah's new age 62.

Happy 62<sup>nd</sup> birthday, Oprah Winfrey!

[1] Oprah Winfrey, Wikipedia

[http://en.wikipedia.org/wiki/Oprah\\_Winfrey](http://en.wikipedia.org/wiki/Oprah_Winfrey)

[2] A. S. Inan, "Happy 60<sup>th</sup> Birthday, Oprah Winfrey!" January 28, 2014.

<http://faculty.up.edu/ainan/OprahWinfrey60thBirthday1292014.pdf>