

A Numerical Brainteaser Birthday Gift for Steve Jobs

Steve Jobs was born on February 24, 1955 (2-24-1955 or simply, 2241955) and died on October 5, 2011 (10052011), at age 56. He was a computer entrepreneur and inventor. He founded Apple Inc. with two of his colleagues on April 1st, 1976 (4011976). As is well known, his inventions had a huge impact on the technological environment we live in today. In memory of him on his first (57th) birthday after his death last year, I put together this numerical brainteaser birthday gift for him:

1. Steve's birth day February 24th represented by 224 (February 24th) equals four times 56, his death age. Also, the digits of his full birth date 2241955 add up to 28, which is half of 56.
2. Interestingly enough, in a leap year (e.g., 2012), his birth day (224) and death day (1005) are apart by 224 calendar days.
3. If Steve's birth year 1955 is split as 1 and 955, $9 \times 5 \times 5 - 1 = 224!$ Also, the product of the digits of 1955 equals the square of 15 where $15 = 10 + 05$, where 10 and 05 put together side-by-side makes 1005, Steve's death day!
4. The product of the digits of Steve's full birth day 2241955 equals the product of the squares of three consecutive numbers $9 \times 16 \times 25$, which reminds us of Pythagoras.
5. If Steve's birthday 2241955 is split into numbers 2, 24, 19, and 55, these four numbers add up to 100. In addition, if number 2241955 is split as 224 and 1955, their sum is 2179 (when Steve will turn 224) where 21 and 79 add up to 100! Interestingly enough note that 2179 is the 327th prime where 327 equals 3 times 109, where 3 and 109 add up to 112 and twice 112 yields 224! (Also, the product of 32 and 7 which make up 327 is 224!) Also, prime 1297 can be obtained from 2179 by switching the positions of its leftmost two digits and the positions of its rightmost two digits and amazingly, 1297 happens to be the 211th prime where double reverse of 211 is again 224!
6. Also, the digits of the 224th prime number given by 1423 add up to 10 the square of which is 100. Also, the cubes of the digits of 1423 add up to 100!
7. If 1423 is split as 14 and 23, 14 times 23 equals 322 the reverse of which is 223 which correspond to the number of days between Steve's birth and death days in a non-leap year. Also, 14 times reverse of 23 yields 448 which equal twice 224, Steve's birth day! Also, if 1423 is split as 1 and 423, their difference yields 422 which is the reverse of 224! In addition, the product of the digits of 1423 is 24, Steve's birth day number!
8. If the digits of Steve's full birthday 2241955 are numbered from one to seven, eliminating the even-numbered digits yield number 2495 the reverse of which equals twice 2971 and the reverse of 2971 equals eight times 224 where eight is the sum of the digits of 224. Unbelievable! Also, switching the places of digits 7 and 1 in 2971 yields 2917 which is the 422nd prime where 422 is reverse of 224!

9. If letters in the English alphabet are assigned numbers as $A = 1$, $B = 2$, ..., and $Z = 26$, the numbers assigned to the letters of the word "Apple" add up to 50 which is half of 100. (The letters of "Apple, Inc." add up to 76 which correspond to the rightmost two digits of 1976. It also equals four times the leftmost two digits of 1976.) In addition, the prime factors of 1102 (which is the reverse of Steve's death year) given by 2, 19 and 29 add up to 50!
10. Switching the places of the middle two digits of 1792 (which is eight times 224) yields 1972, the year when Steve enrolled in Reed College. Note that 1972 equals $2 \times 2 \times 17 \times 29$ where these four primes add up to "Apple"!
11. Steve's full birth day reversed as 5591422 equals $2 \times 941 \times 2971$ where 2971 is reverse of 1792. (As an aside, if number 941 is changed to 914 (by switching digits 4 and 1) and 2971 is changed to 7129 (by switching 29 and 71), interestingly enough, 7129 corresponds to the 914th prime!)
12. Both the sum of the digits and the product of the nonzero digits of Steve's full death day 10052011 each equal 10. Also, interestingly enough, if date number 10052011 is split as 1005 and 2011, twice 1005 equals one less than 2011! Also, $1955 = 1900 + 55$ where twice 55 plus 1900 is double 1005!
13. The reverse of 1976 when Steve founded Apple Inc. is 6791 which correspond to the 874th prime number. Note that the product of the digits of 874 yields 224. Wow! In addition, 1976 is 26 times 76 where these two numbers differ by 50, the sum of the letters of Apple. Also, if 1976 is split as 19 and 76, these two numbers differ by 57, which is Steve's upcoming birthday number. Also, 1976 equals 104 times 19 where reverse of 104 is 401 representing April 1st (the day Steve founded Apple Inc.)!
14. The full date number of April 1st, 1976 (when Steve co-founded Apple) is 4011976 which equals 232 times prime 17293. Interestingly enough, the leftmost four digits of 17293 is 1729 (the famous Hardy-Ramanujan number), which can be derived from 2917 (the 422nd prime) by switching the positions of its leftmost and rightmost two digits. It is amazing to observe different four-digit numbers (each of which is made of digits 1, 2, 7 and 9) keep popping up in Steve's life.
15. The full date of Steve's 36th birthday given by 2241991 is unique because it equals 401×5591 where 401 represents April 1st and 5591 correspond to the reverse of 1955! Also, note that the difference between numbers 19 and 55 (which make up 1955) equals 36!
16. Steve's 61st birthday, to occur in 2016, is interesting since the rightmost two digits of 2016 correspond to the reverse of 61. Also, 2016 equals nine times 224 where nine is the sum of the prime factors of 224!
17. Steve's 146th birthday is noteworthy since the prime factors of 2242101 given by 3, 523, and 1429 add up to 1955. Also, if 1955 is split as 19 and 55, amazingly, the reverses of these two numbers add up to 146!
18. Lastly, the letters of Steve's most favorite toy, "Computer" adds up to 111, a special repunit binary number!

Happy 57th birthday, Steve Jobs!