

Happy Centennial Birthday, Martin Gardner!

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Today, Tuesday, October 21, 2014, American mathemagician and science writer specializing in recreational mathematics Martin Gardner turns 100 years old. Gardner was born on October 21, 1914, around Tulsa, Oklahoma and he died on May 22, 2010, in Norman, Oklahoma. In his honor on his centennial birthday, I constructed the following numerical brainteasers:

1. Martin Gardner's full birthday, 10-21-1914, can easily be obtained from the first five prime numbers (2, 3, 5, 7, and 11) using basic arithmetic. How? $10 = 2 \times 5$, $21 = 3 \times 7$, $3 \times 5 \times 7 - 11 = 94$, where 11 and 94 intertwined yields 1914. Isn't this fun?
2. The product of 21 (the day number of Gardner's birthday) and 14 (rightmost two digits of his birth year) yield 294 and interestingly enough, the 294th day of 1914 and any other non-leap year is October 21st.
3. If numbers 1 to 26 are assigned to the letters of the English alphabet, the sum of the numbers assigned to the letters of "Martin" and "Gardner" add up to $75 + 67 = 142$. Coincidentally, Gardner died on May 22 which is the 142nd day of 2010 and any other non-leap year.
4. Gardner turned palindrome age 77 in 1991, 88 in 2002, and in the next palindrome year (2112), he will turn twice 99! Also, note that with the exception of 1991, the left and the right halves of each year in Gardner's life when he turned into a two-digit palindrome age (e.g., 11 in 1925, 22 in 1936, etc.) add up to a palindrome number.
5. The square of the sum of the digits of 1914 (Gardner's birth year) yields 225, the reverse of which is 522, corresponding to Gardner's day of death, May 22. Also, $19 \times (1 + 4) = 95$, Gardner's age of death.
6. Gardner's 128th birthday to occur on 10-21-2042 will be unique. Why? If date 10212042 is split in the middle as 1021 and 2042, double 1021 equal 2042.
7. Number 19 pops up in different places in Gardner's life. First, the digits of his birthday 10-21-1914 add up to 19. Second, the reverses of numbers 75 and 67 (which correspond to the sum of the numbers assigned to his names "Martin" and "Gardner") are each multiples of 19 ($57 = 3 \times 19$ and $76 = 4 \times 19$). Third, 67 (sum of the numbers assigned to "Gardner") is the 19th prime number. Fourth, Gardner died at $95 = 5 \times 19$. Fifth, if 10211914 is split as 1021 and 1914, these two numbers add up to 2935, where $2 + 9 + 3 + 5 = 19$. In addition, $1914 - 1021 = 893 = 47 \times 19$. Sixth, 1021 (representing Gardner's birth date, October 21) and its reverse (1201) add up to 2222 (a special palindrome number) which equals $2 \times 11 \times 101$, where $2 + 11 + 101 = 6 \times 19$. Seventh, Gardner was born on the 294th day of 1914 where the prime multipliers of 294 (which are 2, 3, 7, and 7) add up to 19. Eighth, Gardner's birthday coincides with the 295th day of a leap year where 295th prime is 1933 when he turned 19. Lastly, Gardner died 152 days before his 96th birthday where 152 equals 8×19 .
8. Finally, if Gardner's centennial birthday 10212014 is split into two four-digit numbers consisting of its odd- and even-numbered digits as 1221 and 0104, interestingly enough, palindrome 1221 equals one-fifth of the sum of 1914 (his birth year) and its reverse (4191) and 0104 corresponds to the sum of the numbers assigned to the letters of the word "mathemagician" coined by Gardner.

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