The 86th birthday of the founder of Bob’s Red Mill is numerically special
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Bob’s Red Mill is a brand produced by Bob’s Red Mill Natural Foods located in Milwaukie, Oregon [1, 2]. It was established by Bob Moore (born on February 15, 1929) in 1978 and is now a multi-million dollar company. For over three decades, Bob has been wholeheartedly committed to providing people all over the world the very best nutritional whole grain foods. In 2010, on his 81st birthday, Bob surprised all his employees by giving them total ownership of Bob’s Red Mill through an Employee Stock Ownership Program.

This Sunday, February 15, 2015 marks Bob’s 86th birthday. After I delved into some of the birthday numbers in his life, I realized that Bob’s upcoming birthday is numerically special. For this reason, I decided to turn my findings into the following fun brainteaser birthday gift for him in recognition of his genuine commitment to providing us high quality healthy food as well as his generosity and humbleness of sharing his wealth with his employees.

1. Each digit in Bob’s 86th birthday expressed as 02-15-2015 repeats twice. (His 122nd birthday written as 02-15-2051 possesses the same property.) In addition, if split in the middle as 0215 and 2015, switching the places of digits “0” and “2” in 0215 yields 2015 and similarly, switching digits “2” and “0” in 2015 yields back 0215.
2. February 15 expressed in month-day date format as 215 equals 5 x 43, where flipping digit “5” upside down vertically yields digit “2” and 2 x 43 = 86, Bob’s new age. Wow!
3. Bob’s new age 86 has an interesting unique property: 86 = 48 + 32 + 6, where 48 = 8 x 6, 32 = 4 x 8, and 6 = 3 x 2.
4. The 86th prime number is 443 and one-fourth of the reverse of 443, which is 344, yield back 86!
5. If numbers 1 to 26 are assigned in order to the letters of the English alphabet, the numbers assigned to the letters of “Bob’s Red Mill” add up to 38 + 27 + 46 = 111 = 3 x 37, where twice the reverse of the difference of these two prime numbers (3 and 37) equals Bob’s new age, 86. In addition, if the odd- and even-numbered digits of Bob’s birth year 1929 are separated as 12 and 99, these two numbers also add up to 111. Also, Bob’s birthday coincides with the 46th day of each year where 46 equal the sum of the numbers assigned to the letters of one of Bob’s favorite words: “Mill".
6. The rightmost two digits of Bob’s birth year 1929 are 2 and 9. Interestingly enough, $2^9 = 512$ and
the reverse of 512 yields 215, Bob’s birth date, February 15. (Also, note that the digits of 02-15-
1929 add up to 29.) In addition, if 215 is split into digits 2, 1 and 5 respectively, 1 plus 5 is 6, 6
rotated 180 degrees on its plane turns into 9, and $2^9 = 512$, the reverse of which gives back 215.
7. If Bob’s 86th birthday 02152015 is split into 02, 15, 20, and 15, these four numbers add up to 52.
In addition, the sum of the squares of the digits of 46 (February 15 is the 46th day of each year)
equals 52. Coincidentally, the numbers assigned to the letters of Bob’s wife’s name, “Charlee”
also add up to 52.
8. Bob’s birth date is hidden in his name, “Bob.” How so? If numbers are assigned to the letters of
“Bob” as 2-15-2, the leftmost two numbers 2-15 in month-day date format represents February
15 and the rightmost two numbers 15-2 in day-month date format also represents 15 February.
Isn’t this something? (Note also that if Bob’s 73rd birthday in 2002 is expressed as 02-15-02,
these three numbers correspond to the letters of his name, “Bob”!)
9. The sum of the numbers assigned to the letters of “Bob Moore” equals 85, which is Bob’s
previous birthday number. Interestingly enough, Bob’s 101st birthday to occur 15 years later,
expressed as 2152030, is divisible by 85 (the sum of the numbers assigned to his name). (His
185th birthday to occur 100 years later written as 2152115 will also be divisible by 85.)
10. If Bob’s centennial birthday written as 2152029 is split as 2, 15, 20, and 29, these four numbers
add up to 66, which corresponds to the sum of the numbers assigned to the letters of his last
name, “Moore.”
11. If Bob’s 119th birthday written as 2152048 is split as 2, 15, 20, and 48, the sum of these four
numbers yield 85, coinciding with the sum of the numbers assigned to the letters of “Bob
Moore.”
12. Bob’s 135th birthday expressed as 2152064 will be very special because its prime factors
$2152064 = 2^7 \times 17 \times 23 \times 43$ add up to $2 + 17 + 23 + 43 = 85$! Also, 2152064 is divisible by 1978
(since 1978 = $2 \times 23 \times 43$), the year Bob founded Bob’s Red Mill, and 2064 will mark its $2 \times 43 =
86th anniversary.
13. Lastly, Bob’s 160th birthday to occur in 2089 will be a perfect square date since $2152089 = 1467
\times 1467$ [3]. Interestingly enough, the difference of the prime factors of 1467 (which are 3 and
163) equals his birthday number, 160!

Thanks for making all of us healthier Bob Moore and have a happy 86th birthday!

P.S. My office number in Donald P. Shiley School of Engineering Building at University of Portland is
215, Bob’s birth date, February 15. What a coincidence!

http://www.bobsredmill.com/