50th Birthday Brainteasers for Whitney Houston
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American recording artist, actress, producer, and model Whitney Elizabeth Houston was born on August 9, 1963 and tragically died at age 48 on February 11, 2012. This Friday, August 9, 2013 marks her 50th birthday and as a tribute to her, I constructed the following numerical brainteasers.

1. The full calendar date of Houston's 50th birthday can be expressed as 08-09-2013, or simply, 08092013. If this number is split into four two-digit numbers as 08, 09, 20, and 13, amazingly, these four numbers add up to 50!

2. Indeed the above "age formula" is true for Houston's any birthday X to occur in year 20AB that fall between years 2000 and 2099. For example, consider Houston's birthday X to occur in the year 20AB on calendar date 08-09-20AB. Split 080920AB into 08, 09, 20, and AB and take the sum of these four numbers, guess what, the answer should come out to be X!

3. The sum of the squares of the digits of Houston's 50th birthday given as 08092013 yields 8 x 8 + 9 x 9 + 2 x 2 + 1 x 1 + 3 x 3 = 159 and this number equals 3 x 53. Interestingly enough, the difference between these two primes also results in 50!

4. If Houston's 50th birthday 08092013 is split in the middle as 0809 and 2013, these two numbers add up to 2822, which equals 2 x 17 x 83. Guess what, (17 + 83) ÷ 2 = 50! Wow!

5. Houston's 50th birthday can also be expressed as 8-9-2013, or simply, 892013. If this date number is split as 89, 20, and 13, the sum of these three numbers yields 122. The reverse of 122 is 221 and interestingly enough, number 221 connects back to Houston's birthday. How? Houston was born on the 221st day of 1963, which is August 9, 1963! What a coincidence!

6. Houston's 49th birthday: Houston's 49th birthday in 2012 was also special for three reasons: First, the reverse of her birth date 89 (August 9) is 98, which equals twice 49. Second, 2012 equals twice the sum of the numbers 908 and 98 where the reverse of each of these two numbers represent Houston's birth date August 9 (that is, 809 is 8-09 and 89 is 8-9). Third, 908 (which is the reverse of 8-09) equals to four times 227 where 227 happens to be the 49th prime number.

7. Houston's 51st birthday: Houston's 51st birthday to occur on 08092014 is hidden in her name, Whitney. How? If numbers 1 to 26 are assigned to the letters of "Whitney" in alphabetical order, these numbers put side-by-side yield 23080920140525. Do you see Houston's 51st birthday hiding in this number series? (Hint: Remove the leftmost two and rightmost four digits of this number. What is left?)

8. Houston's 52nd birthday: Houston's 52nd birthday to occur in 2015 is also interesting. Why? 2015 equals five times 403, where reverse of 403, which is 304, equals the sum of the numbers assigned to the letters of Houston's full name, "Whitney Elizabeth Houston."

9. Lastly, the numbers assigned to the letters of "Houston" add up to 112. The reverse of 112 is 211, which can be interpreted as calendar date 2-11 (February 11), the day Houston died in 2012.

Happy 50th birthday, Whitney Houston!