Find the month and the year that your friend was born

This game helps you can find the year and the month that your friend was born. Let's take an example. You are player A and your friend is player B making simple calculations.

Player A	Player B
Think of the month you were born and find the corresponding number (eg. January 1, February 2)	I was born on February, so number 2
Multiply this number by 2	2•2 = 4
Now add 5	4 + 5 = 9
Multiply by 50	9•50 = 450
Add your age to the number you found	I am 12 years old, so 450 + 12 = 462
Now subtract 365 days – a year	462 – 365 = 97
Last step: add 115	97 + 115 = 212
Well this number says you were born on February and you are 12 years old. Right?	Yes!

Can you explain why that happens?

When you multiply your month of birth by 2 and add 5 and then multiply the sum by 50, then the month of birth is multiplied by 100, while the remaining 250 added to 115 gives 365 which is the number of days you subtract. What remains is a number whose first digits are your month of birth and the rest is your age!

(or in simple math: if x is your month of birth and y is your age, then

$(2x + 5)50 + y – 365 + 115 = 100x + y$)

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