NRICH

Student: Primary

On What Day Did it Happen?

Age 5 to 14 Article by NRICH team

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There is a mathematical method for working out what day of the week each particular date fell on back as far as 1700. I wonder what day it was on Christmas Day in 1801. Neil Armstrong stepped onto the moon on July 21st 1969 what day of the week was it? What day of the week were you born on? Test your parents' memory! You can also go into the future. What day will your birthday be on in ten vears?



You need to know the year, month and day of the month. You need the special numbers listed below. And you need to follow the steps.

Month Nu	mbers	•		Centu	ry	Num	bers			Day Num	bers	
January	1	Dates	from	1700	to	Sept '	16th	1742	Add	4Sunday	1	
February	4	Dates	from	1800	to	1899			Add	2Monday	2	
March	4	Dates	from	1900	to	1999			Add	0Tuesday	3	
April	0	Dates	from	2000	to	2099			Add	6Wednesda	ay4	
May	2	Dates	from	2100	to	2199			Add	4Thursday	´ 5	
June	5									Friday	6	
July	0									Saturday	7	
August	3									,		
September	6											
October	1											
November	4											
December 6												
If it's a leap year,												
January is 0 and												
February is 3												

Here are the steps, with an example to test it out.

I know my daughter was born on Wednesday October 1st 1986	
Steps	Example
Step 1: Take the last two digits of the year (1986)	- 86
Step 2: Divide this by 4 and ignore any remainder (86/4 = 21 rem 2)	21
Step 3: Find the month number (October)	1
Step 4: Add the day number (1st) to the numbers found in	1 + 86 + 21 + 1

Steps 1 to 3. = 109 Step 5: Divide the answer by 7. If the remainder is 0, use 7 for 109/7 = 15 rem the remainder number Step 6: Find the century number Step 7: Add the remainder number from Step 5 to the century number

Step 8: Match this number to a day on the Day Number chart It's Wednesday!

Mmmmmm . I wonder how it all works?

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