# Easter Sunday

Have you noticed that Easter Sunday falls on a different week each year? How do they calculate the date? East Sunday is determined as; wait for it…

The first Sunday after the full moon which happens on or after the equinox in March. If the full moon occurs on a Sunday, Easter Sunday is the Sunday after. Easter Sunday can fall on or between March 22 and April 25. The history of this significant date is long and interesting. Look it up sometime! The congregation used to be told the date of Easter as soon as the Clergy had calculated it; normally only a few weeks beforehand. This wasn’t really practical, in the modern age, so some boffin worked it out mathematically.

The algorithm is as follows:  
  
Let G = (Y mod 19) + 1  
Let C = (Y div 100) + 1  
Let X = (3C div 4) – 12  
Let Z = ((8C + 5) div 25) – 5  
Let D = (5Y div 4) – X – 10  
Let E = (11G + 20 + Z – X) mod 30  
If E = 25 AND G > 11, OR E = 24, then add 1 to E  
Let N = 44 – E  
If N < 21, add 30 to N Let P = N + 7 – ((D +N) mod 7) If P > 31 then  
Easter Sunday is on (P – 31) April,  
Else  
Easter Sunday is on P March

Write a program to calculate the Easter date for this year (which you can easily check) then find out the date of Easter for a few other years.

Skills: Sequence, Selection, Interface design, Mod, Div, Precedence Rules, Functions