Subject n°30

ARITHMETIC

Please do not write on the subject paper and don't forget to give back the examination paper at the end of the test.

Let us say today is a wednesday.

Then in 1 day it will be a Thursday, in 2 days it will be a Friday, in 7 days (ie a week) again a Wednesday etc…

1) What day will it be in 19 days from now? in 54 days ?
2) In 3 days from now it will be a Saturday. Again in 10 days, 17 days, 24 days from now.
   Can you think of other number of days from now which will be Saturdays ?

3) When you divide a number by 7 you get a quotient and a remainder.
   Choose two numbers a and b.
   Divide them by 7, and add the two remainders you get.

   Add a and b and divide their sum by 7. Focus on the remainder, what can you observe ?
   Can you generalise what you've just observed ?

4) Choose two numbers a and b.
   Divide them by 7, and multiply the two remainders you get.

   Multiply a and b, and divide their product by 7. Focus on the remainder, what can you observe ?
   Can you generalise what you've just observed ?

5) In 2014, my birthday was on Wednesday.
   What day will my birthday be next year ?