1.To get digits greater than 2050, the first position of the digit can only be 2, 3, 4 or 5
If the first digit is 3, 4 or 5, there will be 3*(5*4*3) =180 cases
If the first digit is 2, then to have digits smaller than 2050, the second digit must be 0 and third digit cannot be 5, so there will be 3*3 = 9 cases smaller than 2050. Thus, if the first digit is 2, then we can have 5*4*3-9 = 51 cases.
In total there're 231 numbers.

2.
If q=1, there will be (p-1) /1 cases.
If q=2, there will be (p-1)*(p-2)/2*1 cases.
There will be (p-1)*(p-2)···(p-q)/q! arrangements.

3.
(8*7*6*5/(4*3*2*1))*(6*5*4/(3*2*1)) = 1400

4.
The condition is impossible to reach, there will be 0 string.