

LA Session – Counting 1

- 1) How many 7 digit numbers are there that do NOT have any repeated digits and do NOT start with 0?
- 2) How many 7 digits numbers are there that do NOT start with 0 and do NOT have any individual digit appearing twice in a row?
- 3) How many strings of 3 letters do not contain the substring "AA"?
- 4) A palindrome is a string that reads the same forward and backwards. How many palindromes are there (using English letters), of length 5 or less?
- 5) This question considered permutations of "RONALDMCDONALD".
 - a) How many permutations are there total?
 - b) How many permutations start and end with vowels?
 - c) How many permutations do NOT have consecutive vowels in them?
 - d) How many permutations contain the vowels in order (all As before all Os)?
 - e) How many permutations contain the substring "OLAND"? (Note: This one is hard!)