Problem of the Week
Problem E
Just Like Kayak 3

A palindrome is a word, phrase, or positive integer that reads the same forwards and backwards. For example, "kayak" is a palindrome. The integers 292, 11, and 6 357 536 are also palindromes.

Determine the number of nine-digit palindromic integers that satisfy the following:

- The first five digits in the integer are distinct.

- The integer is divisible by 4 and/or the integer ends with an 8.