## Problem of the Week Problem B

## Find the 'Primadromes'

A palindrome is a number which is the same if its digits are reversed. For example, 131 is a palindrome, 133 is not.

A prime number is a natural number greater than one which has only two factors, the number 1 and itself. For example, 17 is a prime number because it has factors 1 and $17 ; 21$ is not a prime number because it has factors $1,3,7$, and 21 .

a) What number other than 1 is a factor of every two-digit palindrome?
b) How many two-digit palindromes can be written as the product of two prime numbers?

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