



Problem of the Week

Problem E

Number Crunching

While waiting for the bus one day, Leo divided numbers on his calculator. He noticed that when 44 000 is divided by 18, the remainder is 8. He then noticed that the remainder is also 8 when 44 000 is divided by 24, and also when 44 000 is divided by 39. Leo then set out to find other numbers that had the same remainder (not necessarily 8), when divided by 18, 24, and 39.

How many five-digit positive integers have the same remainder when divided by 18, 24, and 39?

