

Suppose we have a 3-digit number a . Multiplying it by 1001 we get:

$$1001a = 7 \cdot 11 \cdot 13a$$

Numbers 7, 11 and 13 are prime, thus $1001a$ is divisible by 3 prime numbers: 7, 11, 13. Their sum is $7 + 11 + 13 = 31$.

ANSWER: 31