



Problem 5. «Primes»

Marcus invented a new cryptosystem. To start to work with it one should choose two big prime numbers p and q , then calculate $n = p \cdot q$ and $m = p + q$. The number $n \cdot m$ will be used in the cryptosystem.

While testing the system Marcus has noticed that for the chosen numbers p and q the resulting number $n \cdot m$ ends with 2023. Is this possible?

2023

- 2 users
- 0 information about the key
- 2 prime numbers
- 3 operations
- ?