

HOMEWORK

Factorization (Division E)

Name: _____ 02/28/2010

1. A two digit number XY , such that X , Y , XY and YX are all primes, find X and Y .

2. Which of the following is a prime, which is not?
(a) 23 (b) 91 (c) 97 (d) 1

3. A prime p is called a twin prime if p is a prime and $p + 2$ is also a prime. For example, 3 is a twin prime, since 3 and 5 are all primes. Find all the twin primes less than 20.

4. Factorize the following numbers:
(a) 4123 (b) 427091

5. Could the following numbers be a prime?
 $2 \times 3 \times 5 \times 7 \times 9 \times 11 + 11 \times 13 \times 17 \times 19 \times 23$?