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The Virtual Learning Environment for Computer Programming

Prime number X77384_en

Design a circuit that has a 4-bit number as input. The output of the circuit must be 1 if the number represented by the input in binary code is prime, and 0 otherwise (0 and 1 are not prime).

The top module must be called *prime*.

```
module prime (n, is_prime );
input [3:0] n;
output is_prime;
```

Input

• *n* is the 4-bit input number.

Output

• *is_prime* is the output indicating whether the number is prime or not.

Problem information

Author: Jordi Cortadella

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