4-bit adder   X97441_en

Design a circuit that performs the addition of two 4-bit numbers. The result (mod 16) must be represented in 4 bits also.

Specification

```
module adder4(a, b, sum);
    input [3:0] a, b;
    output [3:0] sum;
```

Hint

You may want to use several instances of a 1-bit full adder.

Input

- a and b are the two 4-bit number.

Output

- *sum* is the 4-bit output representing $(a + b)$ mod 16.

Problem information

Author : Jordi Cortadella
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