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

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