## 4-bit adder X64833_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 $(a + b) \bmod 16$.

### Problem information

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