ADDER
(Multibit adder)

↳ "Overflow is neither detected nor handled"

```
CHIP Add16 {
    IN a[16], b[16];
    OUT out[16];

    PARTS:
    HalfAdder(a= a[0], b= b[0], sum= out[0], carry= carry0);
    FullAdder(a= a[1], b= b[1], c= carry0, sum= out[1], carry= carry1);
    FullAdder(a= a[2], b= b[2], c= carry1, sum= out[2], carry= carry2);
    FullAdder(a= a[3], b= b[3], c= carry2, sum= out[3], carry= carry3);
    FullAdder(a= a[4], b= b[4], c= carry3, sum= out[4], carry= carry4);
    FullAdder(a= a[5], b= b[5], c= carry4, sum= out[5], carry= carry5);
    FullAdder(a= a[6], b= b[6], c= carry5, sum= out[6], carry= carry6);
    FullAdder(a= a[7], b= b[7], c= carry6, sum= out[7], carry= carry7);
    FullAdder(a= a[8], b= b[8], c= carry7, sum= out[8], carry= carry8);
    FullAdder(a= a[9], b= b[9], c= carry8, sum= out[9], carry= carry9);
    FullAdder(a= a[10], b= b[10], c= carry9, sum= out[10], carry= carry10);
    FullAdder(a= a[11], b= b[11], c= carry10, sum= out[11], carry= carry11);
    FullAdder(a= a[12], b= b[12], c= carry11, sum= out[12], carry= carry12);
    FullAdder(a= a[13], b= b[13], c= carry12, sum= out[13], carry= carry13);
    FullAdder(a= a[14], b= b[14], c= carry13, sum= out[14], carry= carry14);
    FullAdder(a= a[15], b= b[15], c= carry14, sum= out[15], carry= carry15);
}
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Incrementer: special purpose chip dedicated