

```
1  // Jonathan Monreal
2
3  // Impliment a partial adder
4  module adder(a, b, ci, s, co);
5
6      input a, b, ci;
7      output s, co;
8      wire e_, f_, y2_;
9
10     not u5(a_, a);
11     not u6(b_, b);
12     nand u1(y1, a_, b_);
13     nand u2(y2_, ci, y1);
14     nand u3(y3_, a, b);
15     nand u4(co, y2_, y3_);
16
17 endmodule
```