

```
`timescale 1ns / 1ps

////////////////////////////////////
////////////////////////////////////

// Company:
// Engineer:
//
// Create Date: 10/13/2020 06:08:33 PM
// Design Name:
// Module Name: Full_Adder
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
//
// Dependencies:
//
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
////////////////////////////////////
////////////////////////////////////

module Full_Adder(
    input A,
    input B,
```

```
input Cin,  
output S,  
output Cout  
);
```

```
assign S = A ^ (B ^ Cin);  
assign Cout = (B & Cin) | (A & Cin) | (A & B);
```

```
endmodule
```