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/************************
* Date: Aug. 15, 2006
* File: Mux_2_to_1b.v (440 Examples)
* Behavioral Model of a 2 to 1 MUX (16-bit inputs)
******************************
//***************
 module mux_2to1(Y, A, B, sel);
//**************
   output [15:0] Y;
   input [15:0] A, B;
   input sel;
   reg [15:0] Y;
   always @(A or B or sel)
    if (sel == 1'b0)
     Y = A;
    else
     Y = B;
```

endmodule