

```
1  module hexdigit (
2      input          [3:0] in,
3      output reg     [6:0] out);
4
5      always @(in) begin
6          case (in)
7              4'b0000: out = 7'b1000000;
8              4'b0001: out = 7'b11111001;
9              4'b0010: out = 7'b0100100;
10             4'b0011: out = 7'b0110000;
11             4'b0100: out = 7'b0011001;
12             4'b0101: out = 7'b0010010;
13             4'b0110: out = 7'b0000010;
14             4'b0111: out = 7'b11111000;
15             4'b1000: out = 7'b0000000;
16             4'b1001: out = 7'b0010000;
17             4'b1010: out = 7'b0001000;
18             4'b1011: out = 7'b0000011;
19             4'b1100: out = 7'b1000110;
20             4'b1101: out = 7'b0100001;
21             4'b1110: out = 7'b000110;
22             4'b1111: out = 7'b0001110;
23         endcase
24     end
25 endmodule
26
27
28
```