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timescale 1ns / 1ps
/*****
*
* Module: arithmetic_top
*
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* Class: ECEN 220, Section 3, Fall 2020 - ECEN 220, Section 1, Winter 2020
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*
* Description: This module assigns a and b and co to be the switches and leds and
calls the Add9 module.
*
*
*****/
`default_nettype none

module arithmetic_top(
    input wire logic [15:0] sw,
    output logic [8:0] led
);

logic co;
logic [8:0] a, b;
assign b = {sw[7], sw[7:0]};
assign a = {sw[15], sw[15:8]};

Add9 A0(.a(a), .b(b), .cin(1'b0), .co(co), .s(led));

endmodule

```