Project 2: Adders Assignment

Part 1: Implement a half adder using a function definition. This function should take two inputs, p and q, and it should return c and s. See the half adder diagram in your notes. Use two "for" loops to help you create a truth table for the half adder.

Part 2: Implement a full adder using a function definition. This function should take three inputs, p, q, and r, and it should return c and s. See the full adder diagram in your notes. Note that your full adder function can call your half adder function. Use three "for" loops to help you create a truth table for the full adder.

Part 3: Implement a parallel adder using a function definition. This function should take six inputs, p, q, r, s, t, and u, and it should return c, s_1, s_2, and s_3. See the parallel adder description in your notes. Note that your parallel adder function can call your half adder function and your full adder function. Demonstrate that your parallel adder function works by doing several addition examples with it.