

Arithmetic Circuit (See slides 6++ for illustration)

- The Arithmetic circuit may implement the following components:
 - Parallel Adder
 - Built from a cascade of full-adder circuits (RCA)
 - The data input to the parallel adder is manipulated in order to achieve a number of arithmetic operations

■ $G = A + Y + C_{in}$

The Arithmetic micro-ops can be implemented using the carry-in and the two select inputs S_1 & S_0, which condition the B input to deliver Y to the full-adder computing $G = A + Y + C_{in}$