

# Carry Chain Adder (1A)

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# G and P

$x(i), y(i) : (\log_2 B)$ -bit  
number

Generate      $g(i) = 1$      If  $x(i) + y(i) > B - 1$   
                  0     otherwise

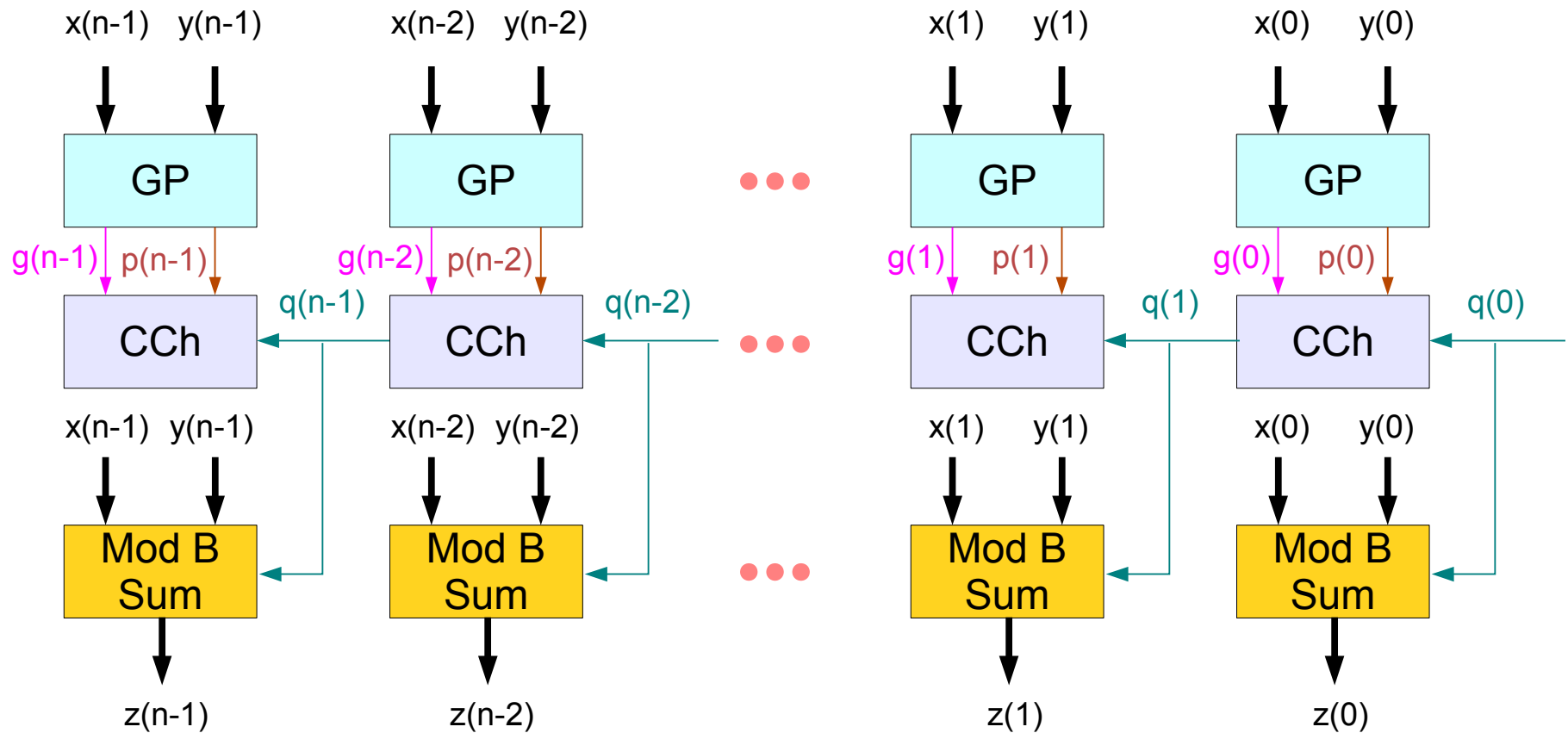
Propagate     $p(i) = 1$      If  $x(i) + y(i) = B - 1$   
                  0     otherwise

# Carry Chain

$q(i+1), q(i)$  : 1-bit number

|          |   |        |           |            |           |
|----------|---|--------|-----------|------------|-----------|
| $q(i+1)$ | = | $q(i)$ | when      | $p(i) = 1$ | Propagate |
|          | = | $g(i)$ | otherwise |            | Generate  |

# Carry Chain Adder





# Angle

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## References

- [1] <http://en.wikipedia.org/>
- [2] J-P Deschamps, et. al., "Synthesis of Arithmetic Circuits", 2006