

Homework 3

Due: Practice problems for Quiz #4

Turnin: Nothing. These are practice for Quiz #4. Solutions to all problems are attached.

1. — For the following pair of 16-bit numbers, determine the “super” propagate and generate bits and the value of C_1 , C_2 , C_3 , and C_4 . See slides 38 to 45 for an example. Use $c_0 = 0$.

a: 1001 0111 1000 1011_{two}

b: 1111 0010 0101 0111_{two}

Assume the bits are numbered 15 to 0 from left to right.

2. — Same as the previous problem. This time, use $c_0 = 1$.

a: 0111 0101 0000 1101_{two}

b: 1100 0111 0011 0101_{two}

3. — Same as the previous problem. This time, use $c_0 = 1$.

a: 0101 0101 0000 1100_{two}

b: 1101 1111 1111 0001_{two}

4. — **turnin this one:** Same as the previous problem. This time, use $c_0 = 0$.

a: 1110 0101 1010 0100_{two}

b: 0001 1011 0000 1111_{two}