

Lec-6-HW-3-ALUarithmetic

Part 1. Reading, PP, Chp 2:

- 2.1 (Bits and datatypes)
- 2.2 (signed and unsigned integers)
- 2.3 (2's complement)
- 2.4 (positional notation)
- 2.5 (int. add/sub, signed/unsigned overflow)
- 2.6 (logic: AND, OR, NOT, XOR)
- 2.7 (bit vectors, floating point, ascii, hex)

Part 1. Problems, PP, Chp 2:

- 2.2 (#bits for 26 char)
- 2.4 (unsigned range of n-bit)
- 2.5 (5-bit 2's comp., signed mag., and 1's comp.)
- 2.6 (6-bit 2's comp.)
- 2.8 (8-bit and n-bit 2's comp. ranges)
- 2.9 (bits per decimal digit in fp. format)
- 2.10ab (convert 2's comp. to dec.)
- 2.11ac (convert dec. to 2's comp.)
- 2.13 (convert k-bit 2's comp. to 8-bit)
- 2.15 (what op == shift right?)
- 2.17ab (i-bit + k-bit 2's comp.)
- 2.18ab (i-bit + k-bit unsigned)
- 2.20 (4-bit 2's comp. overflow)
- 2.34b (AND-OR-NOT)
- 2.36 (bit masking: BUSYNESS vector)
- 2.37 (alg. for detecting 4-bit 2's comp. overflow)
- 2.39a (dec. to fp format)
- 2.40ab (fp format to dec.)
- 2.44 (convert bin. to ascii)
- 2.45ab (convert bin. to hex.)
- 2.49ab (add in hex. notation)
- 2.50a (logic in hex. notation)
- 2.52 [only col. 1](32-bit hex. to unsigned, 1's-2's comp., fp, ascii)
- 2.56 (define 8-bit fp format)