HW 5

3.1   5ED4 - 07A4

$0x5ED4 \Rightarrow$ 0101 1110 1101 0100

$0x07A4 \Rightarrow$ - 0000 0111 1010 0100
_____
          0101 0111 0011 0000

$\Rightarrow$ 0x5730

3.6   185 and 122 are unsigned 8-bit decimal integers

        185 - 122

$185 = 92 \times 2 + 1$ $122 = 61 \times 2 + 0$

$92 = 46 \times 2 + 0$ $61 = 30 \times 2 + 1$ 11010101
                                                                00 01010
                                                              10111001

$46 = 23 \times 2 + 0$ $30 = 15 \times 2 + 0$ - 01111010
                                                              _____
$23 = 11 \times 2 + 1$ $15 = 7 \times 2 + 1$ 00111111$_2$

$11 = 5 \times 2 + 1$ $7 = 3 \times 2 + 1$

$5 = 2 \times 2 + 1$ 3   1   neither overflow or
                                                                underflow
      0   1   1

      1   0

$= 10111001_2$ $= 01111010_2$