**3.1** [5] <§3.2> What is 5ED4 - 07A4 when these values represent unsigned 16-

bit hexadecimal numbers? The result should be written in hexadecimal. Show your

work.

**Answer:** 4 – 4 = 0, D – A = 3, E – 7 = 7, 5 – 0 = 5

=> 5ED4 – 07A4 = 5730

**3.6** [5] <§3.2> Assume 185 and 122 are unsigned 8-bit decimal integers. Calculate

185 – 122. Is there overflow, underflow, or neither?

**Answer:** 185 – 122 = 63, there is neither overflow nor underflow.

**3.13** [20] <§3.3> Using a table similar to that shown in Figure 3.6, calculate the

product of the hexadecimal unsigned 8-bit integers 62 and 12 using the hardware

described in Figure 3.5. You should show the contents of each register on each step.

**Answer:**

Multiplicand: 62 -> 00111110

Multiplier: 12 -> 00001100



Product => 0000001011101000 -> 744