

Module 9 Due the next class meeting after Module 9 is done in class.

1. **Software pipeline your Word-Wide optimized code from Module 8. Show your dependency graph, scheduling table and final code including the prolog and epilog.**

```

                MVK  .S1  40, A2          ; A2 = 40, loop count
loop:          LDH  .D1  *A5++, A0       ; A0 = a(n)
                LDH  .D1  *A6++, A1       ; A1 = x(n)
                MPY  .M1  A0, A1, A3      ; A3 = a(n) * x(n)
                ADD  .L1  A3, A4, A4      ; Y = Y + A3
                SUB  .L1  A2, 1, A2       ; decrement loop count
[A2]          B    .S1  loop            ; if A2 ≠ 0, branch
                STH  .D1  A4, *A7        ; *A7 = Y

```

2. **How many cycles does the software pipelined code take?**