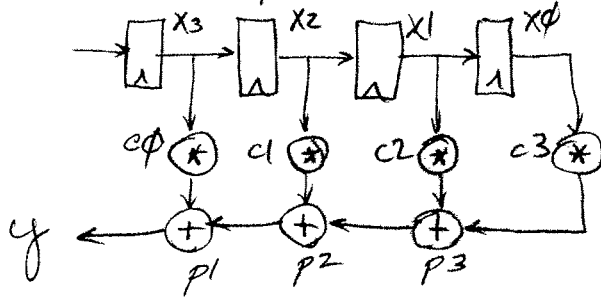


Scheduling & Time Multiplexing



Iterative Method Schedule

| Schedule | Mφ | M1 | Aφ | A1 |
|----------|------|------|------|------|
| | c2 | c3 | | |
| | cφ | c1 | p3 | |
| 0: | (c2) | (c3) | p2 | - |
| 1: | (cφ) | (c1) | (p3) | p1 |
| | | (p2) | - | (p1) |

prologue (startup)

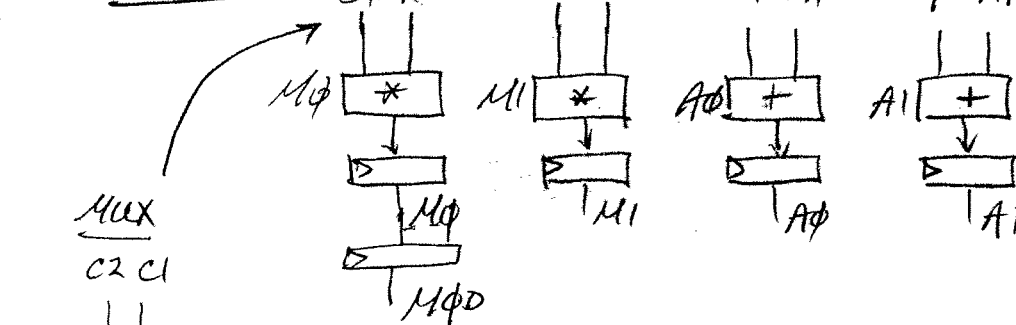
Steady State

epilog (Shutdown)

X shift register shifts every other cycle

| Circuit | 0: c2 x1 | c3 xφ | M1 Aφ | x x |
|---------|----------|---------------------------------------|-------|---------|
| | 1: cφ x3 | c1 x2 <th>M1 Mφ</th> <th>Mφ D Aφ</th> | M1 Mφ | Mφ D Aφ |

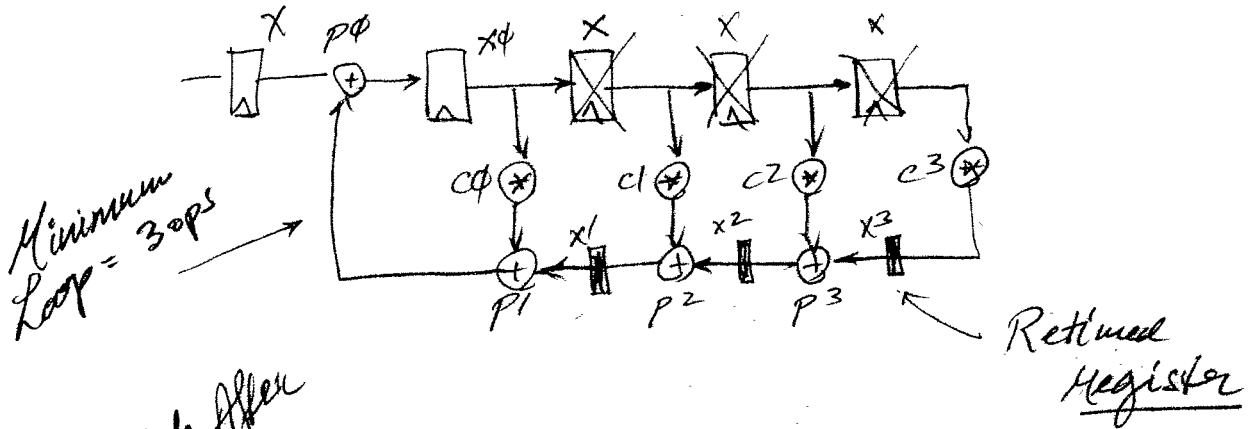
y output is valid on cycle #1.



Control Counter

0, 1, 0, 1, ...

Using Retiming to reduce Schedule Length



Schedule After Retiming
Schedule repeats every 3 clocks

