

Consider the following two schedules of the above graph onto two functional units.

- Assume there is a single memory for holding intermediate results.
- Assume the inputs A, B, C, D begin in memory; once the last dependent node uses these, their memory locations can be reused.
- For each schedule, identify the minimum number of memory elements required (i.e., maximum number of values held in memory in any timeslice).
- Memory in use in cycles 0, 1, 5, and 6 are already completed.

Cycle	FU1	FU2	Memory										#
0	-	-	A	В	C	D							4
1	a	b	А	В	С	D	a	b					6
2	e	f											
3	с	d											
4	g	h											
5	i	j	i	j									2
6	k		k										1
												Max	
			Memory										
Cycle	FU1	FU2					Mer	nory					#
Cycle 0	FU1 -	FU2	A	В	C	D	Mer	nory					#
Cycle 0 1	FU1 - a	FU2 - b	A A	B B	C C	D D	Mer	nory b					$\frac{\#}{4}$
	FU1 - a g	FU2 - b c	AA	B B	C C	D D	Mer.	nory b					# 4 6
Cycle 0 1 2 3	FU1 - a g d	FU2 - b c e	AA	B	C C	D D	Mer a	nory b					# 4 6
Cycle 0 1 2 3 4	FU1 - a g d h	FU2 - b c e f	AA	B	C	D D	Mer	b					# 4 6
Cycle 0 1 2 3 4 5	FU1 - a g d h i	FU2 - b c e f j	A A i	B B j	C	D	Mer	b					$ \begin{array}{c} \# \\ 4 \\ 6 \\ \hline 2 \end{array} $
Cycle 0 1 2 3 4 5 6	FU1 - a g d h i k	FU2 - b c e f j	A A i k	B B j	C	D	Mer	b					