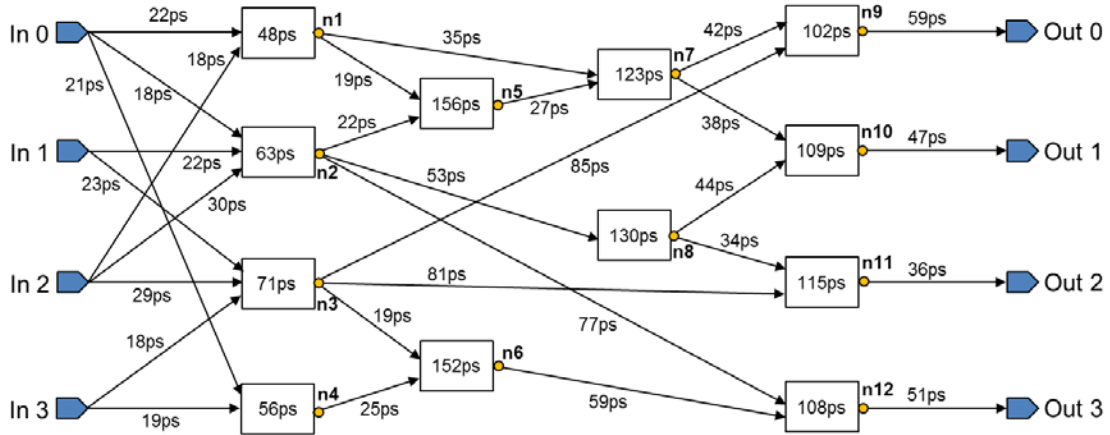


Homework Assignment 9

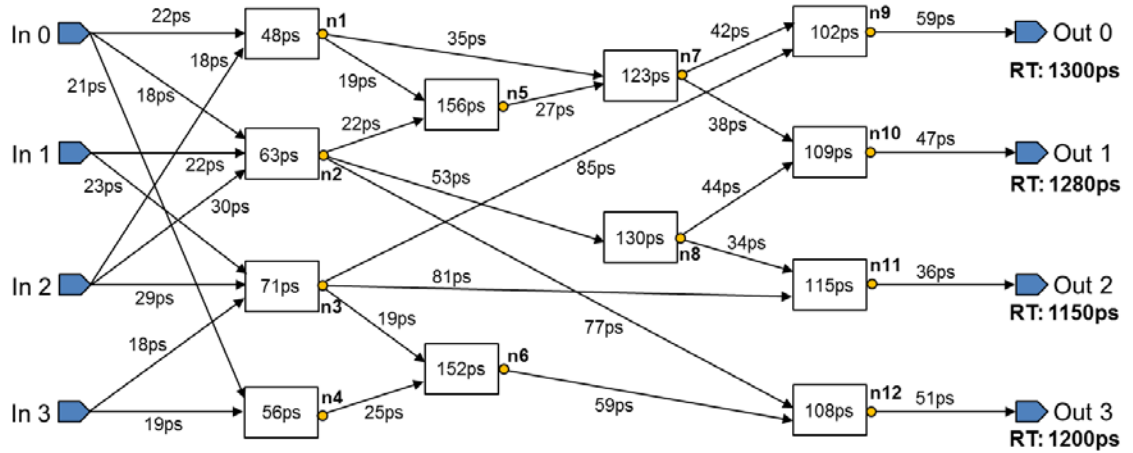
(Due Apr. 26th at the beginning of the class)

1. [Timing Analysis, **15 points**] The following shows the delay of each net and cell. Compute arrival time at each node (n1 ~ n12, Out 0 ~ Out 3) shown below. Arrival time at each input pin is zero.



	Arrival time		Arrival time
n1		n9	
n2		n10	
n3		n11	
n4		n12	
n5		Out 0	
n6		Out 1	
n7		Out 2	
n8		Out 3	

2. [Timing Analysis, **15 points**] The following shows the delay of each net and cell and the required time at each output. Compute required time at each node (n1 ~ n12, In 0 ~ In 3).



	Required time		Required time
n1		n9	
n2		n10	
n3		n11	
n4		n12	
n5		In 0	
n6		In 1	
n7		In 2	
n8		In 3	