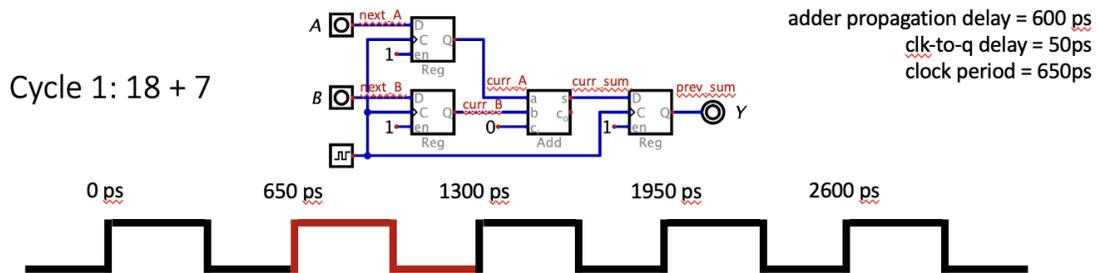
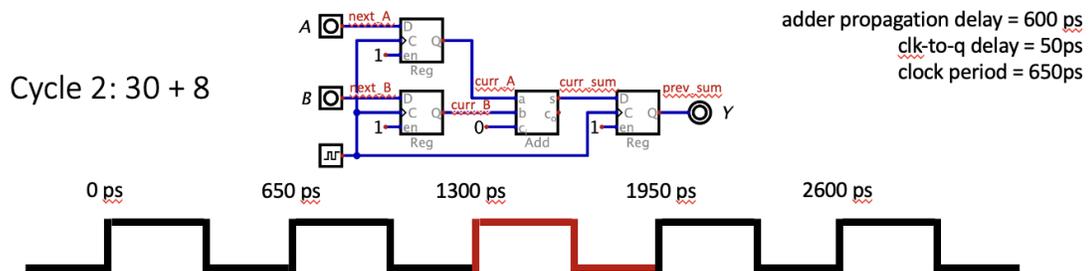


Question 1: Timing Analysis! Fill in the timing analysis tables.



Signal	t = 650 ps A = 18 B = 7	t = 700 ps A = 18 B = 7	t = 1300 ps A = 30 B = 8
next A	18		
next B	7		
curr A	7		
curr B	7		
curr sum	14		
prev sum	0		

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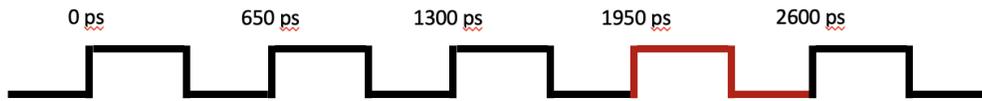


Signal	t = 1300 ps A = 30 B = 8	t = 1350 ps A = 30 B = 8	t = 1950 ps A = 15 B = 30
next A	30		
next B	8		
curr A	18		
curr B	7		
curr sum	25		
prev sum	14		

60

adder propagation delay = 600 ps
 clk-to-q delay = 50ps
 clock period = 650ps

Cycle 3: 15 + 30



Signal	t = 1950 ps A = 15 B = 30	t = 2000 ps A = 15 B = 30	t = 2600 ps A = 20 B = 30
next A	15		
next B	30		
curr A	30		
curr B	8		
curr sum	38		
prev sum	25		

adder propagation delay = 600 ps
 clk-to-q delay = 50ps
 clock period = 650ps

Cycle 4: 20 + 30



Signal	t = 2600 ps A = 20 B = 30	t = 2650 ps A = 20 B = 30	t = 3250 ps A = 0 B = 0	t = 3300 ps A = 0 B = 0
next A	20			
next B	30			
curr A	15			
curr B	30			
curr sum	45			
prev sum	38			