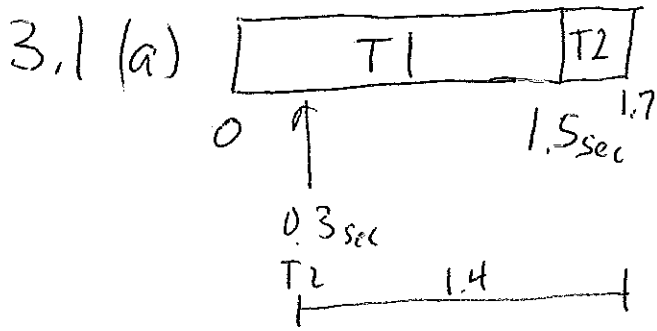
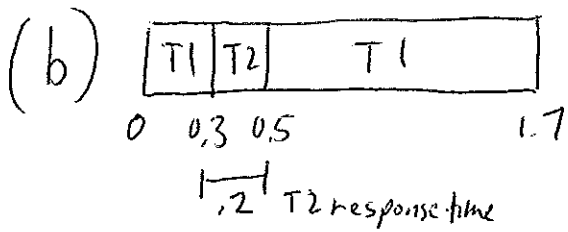


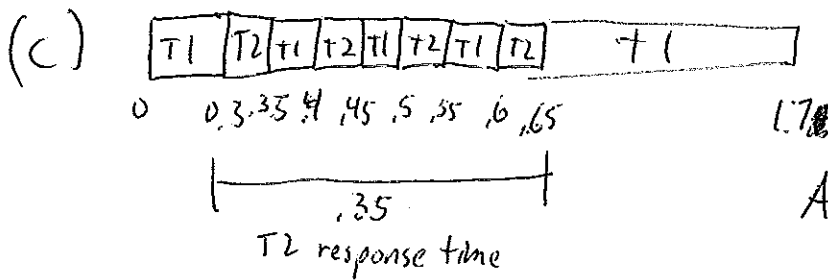
OS HW #2 Ch.3 Exercises: 3.1, 3.3, 3.4, 3.7, 3.8



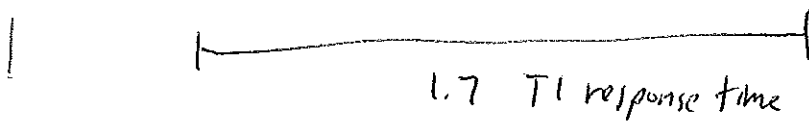
Average =  $(1.5 + 1.4) / 2 = 1.45 \text{ sec}$   
 Response time



Ave. RT =  $(1.7 + 0.2) / 2 = 0.95 \text{ sec}$

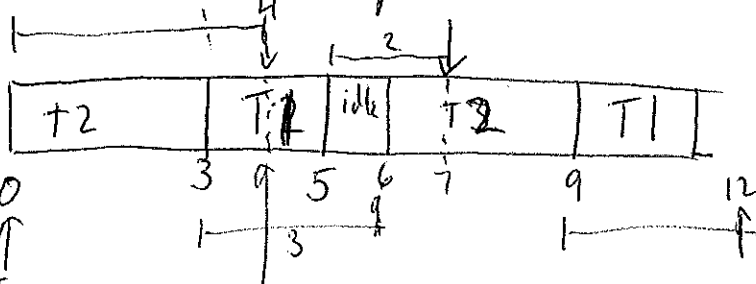


Ave. RT =  $(1.7 + 0.35) / 2 = 1.025 \text{ sec}$



3.3	Thread	Period/Deadline	Exec. time/period	"sleep"
	T1	4 sec	2 sec	2 sec
	T2	6 sec	3 sec	3 sec

T2 has higher priority than T1



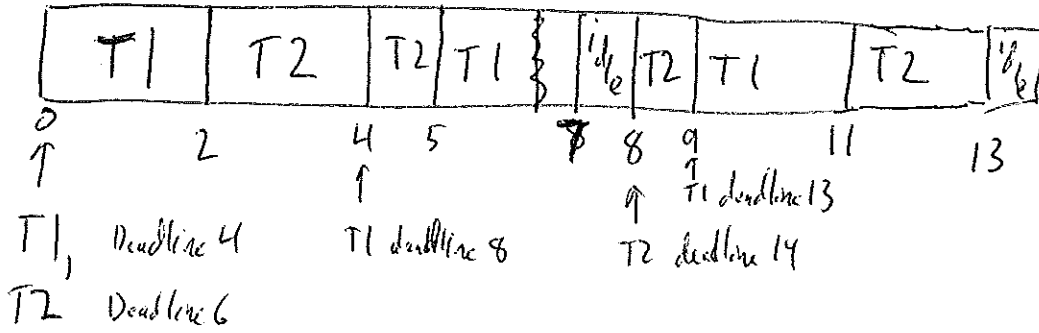
0.5  
↑  
T1,  
T2

T1 ran only 1 sec. in first 4 sec so it missed its deadline.

3.4

	<u>Period / Deadline</u>	Exec. time
T1	4 sec	2 sec
T2	6	3 sec

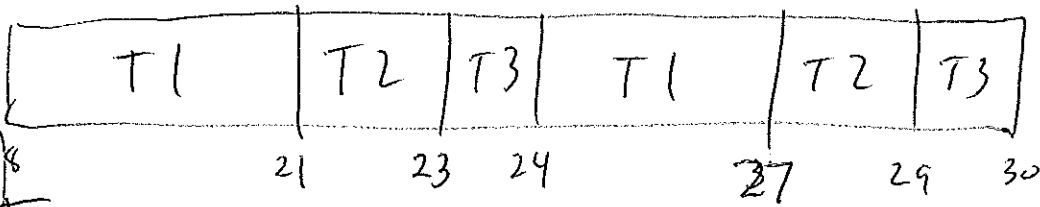
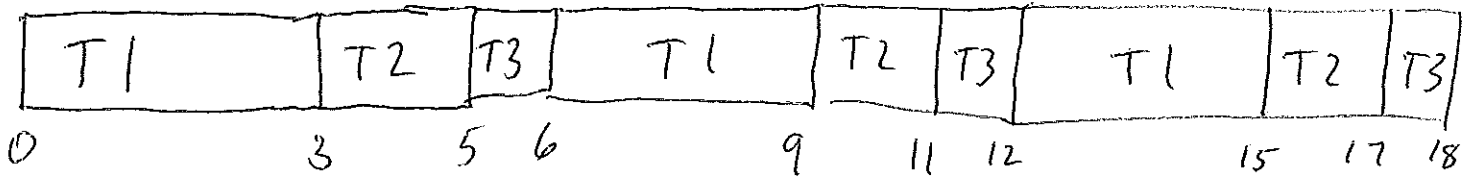
0.5



3.7

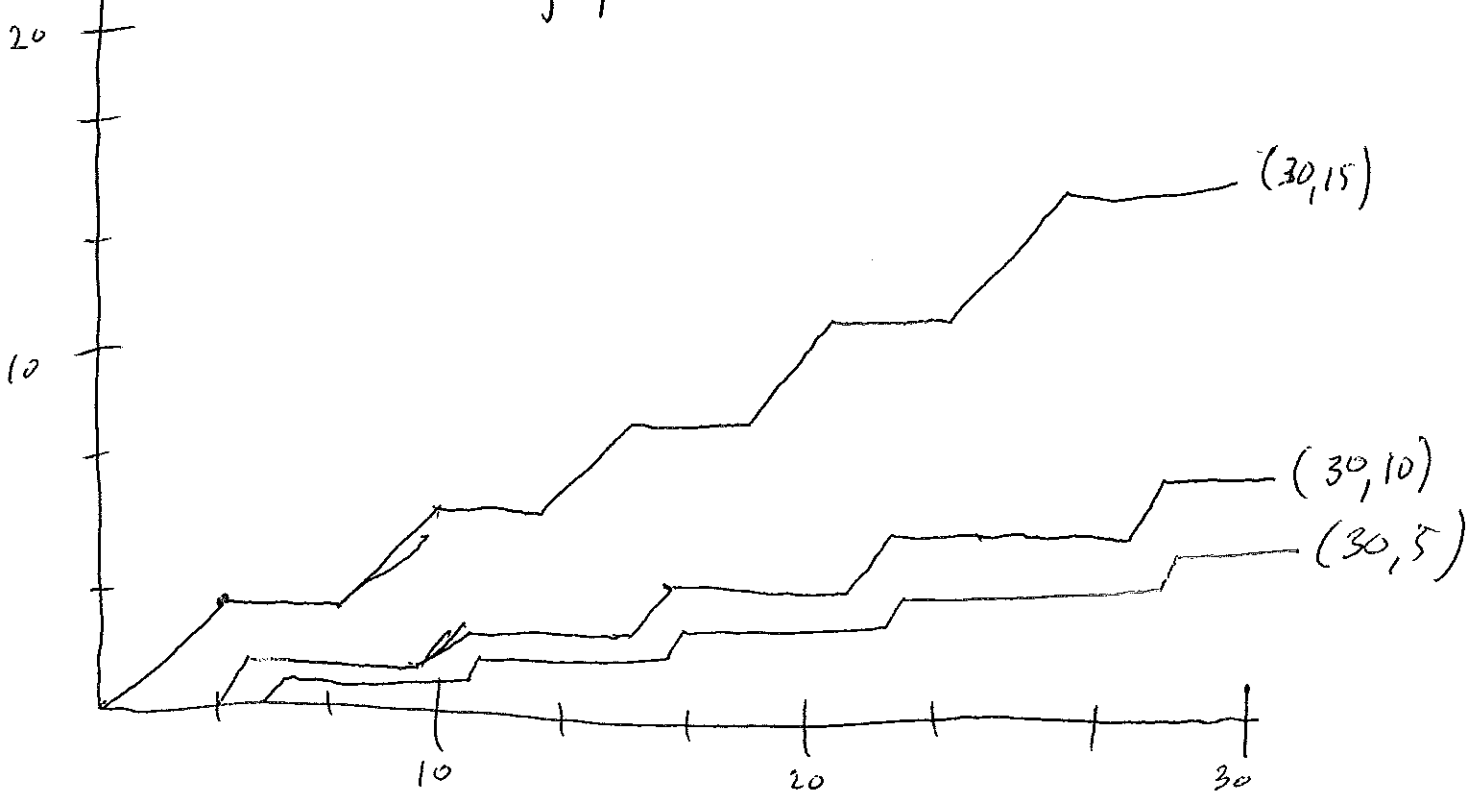
	V.R. time / actual run time		WFQ
T1	2 ms	3	$\frac{1}{7}$
T2	3 ms	2	$\frac{2}{3}$
T3	6 ms	1	$\frac{1}{3}$

WRR

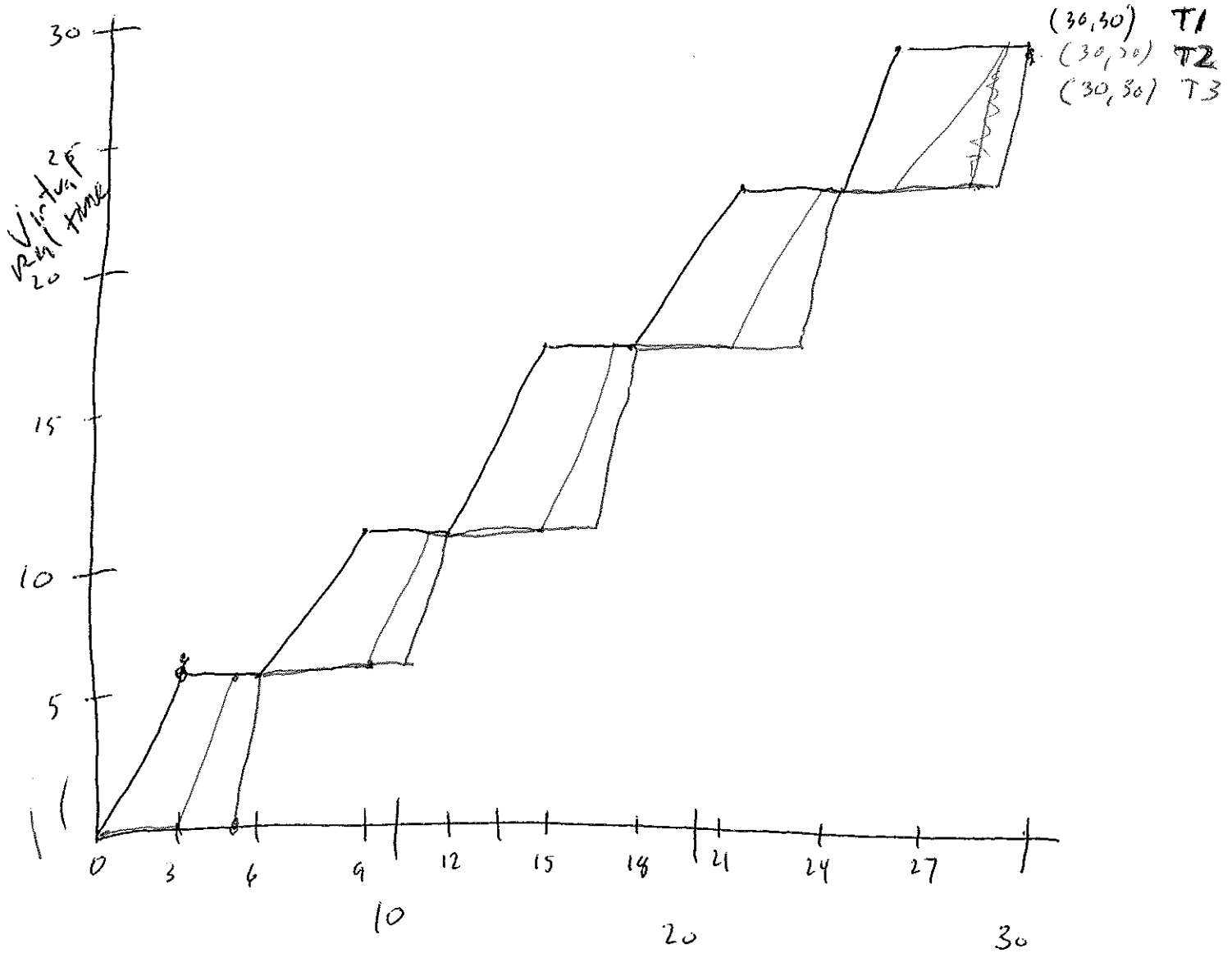


Actual CPU Time

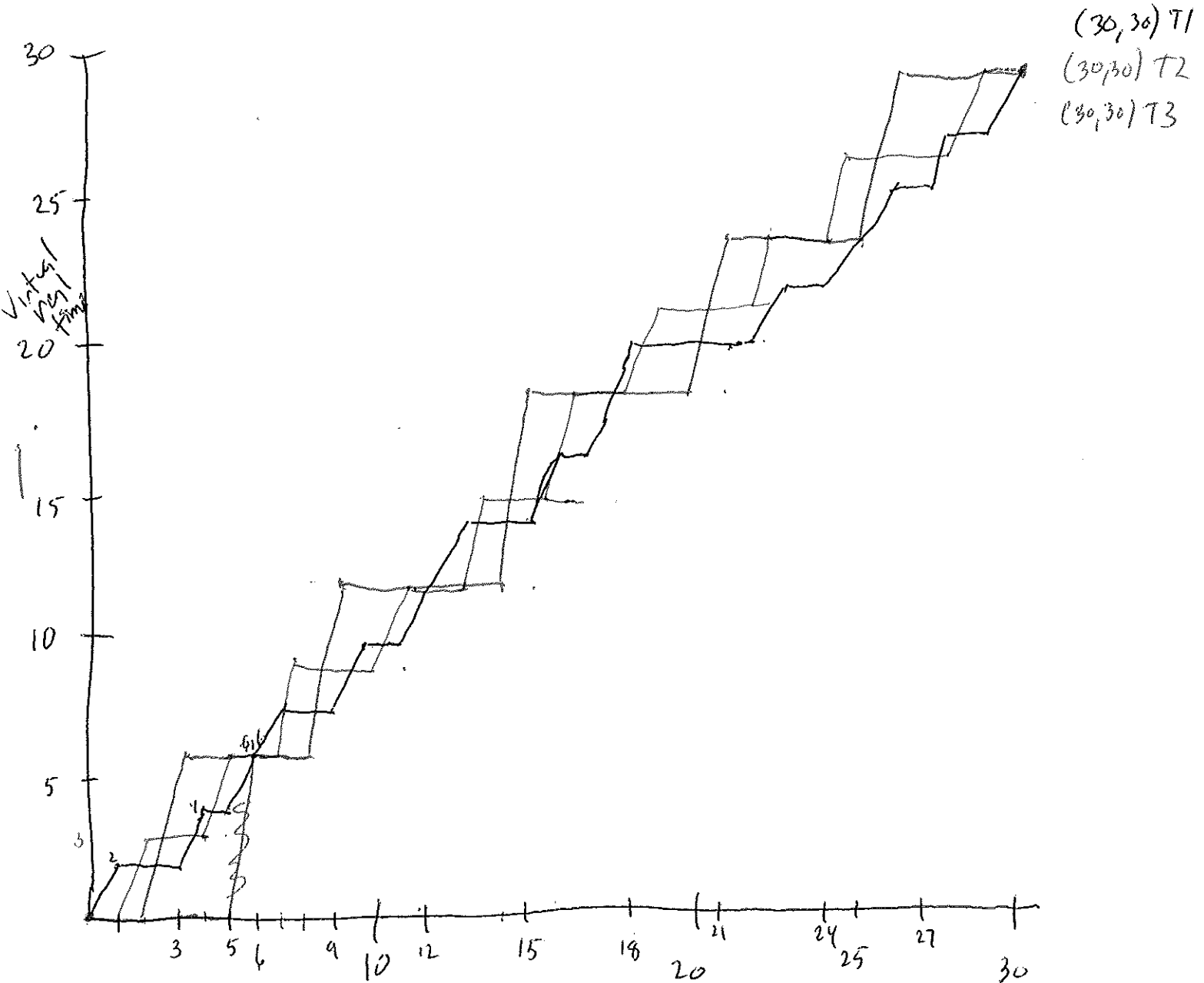
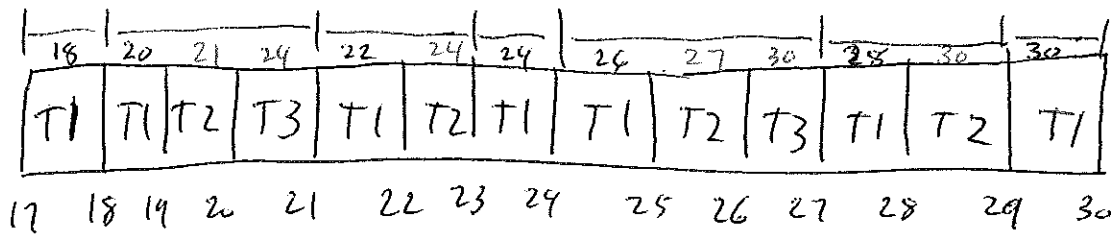
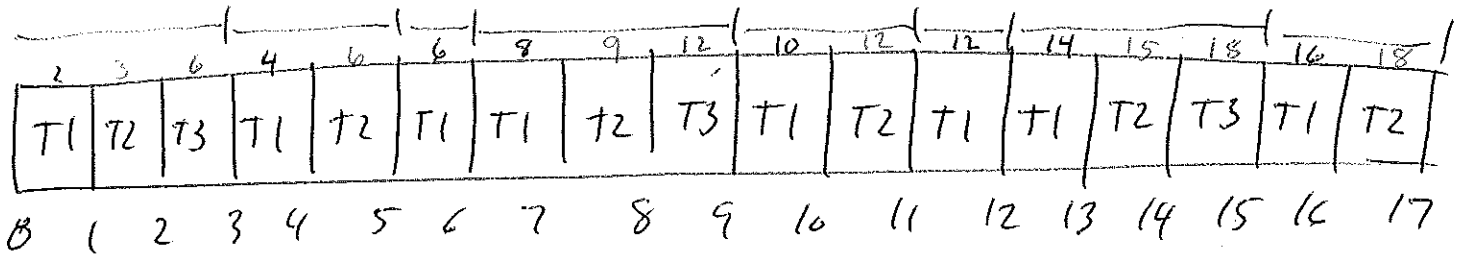
(This shows actual CPU time - next graph shows virtual run-time)



3.7 WRR

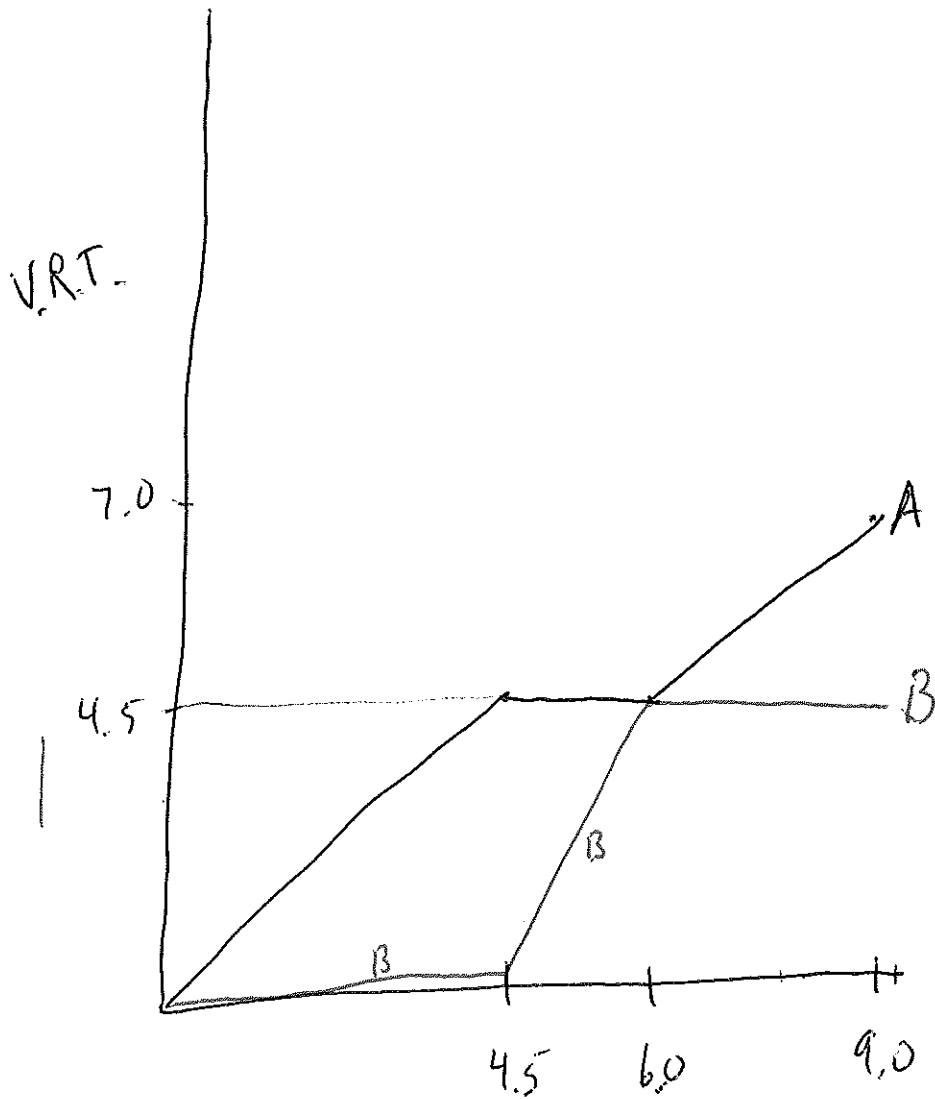
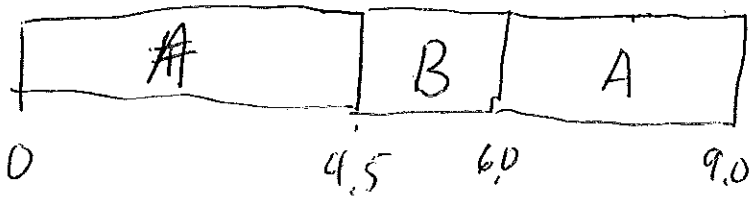


37 WFQ assume uniform time-slice of 1ms



WFQ is closer to diagonal than WRR (±25)

3.8.



Choose B because it has a lower virtual time

5