

For the following three jobs:

☐ P1: 10 (3,2,5)

☐ P2: 4 (2,2)

☐ P3: 16 (2,3,5,6)

☐ Execute the three jobs using Exp Ave and MLFQ.

ExpAve:Alpha =0.6, default=2, ignore I/O wait times.

MLFQ:q1=1, q2=2, q3=4. A process that exits the queue system due to a completed burst (for I/O wait), returns to Q1 after 2 time quantum, but does NOT preempt the current queue that is executing, until that time slice is

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Q1	P1	P2	P3					P1	P2	P3						P1			P3	
Q2				P1	P1	P2	P3				P1	P1	P2	P3	P3		P1	P1		P3
Q3																				

	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Q1								P3												
Q2	P3								P3	P3										
Q3		P1	P1	P3	P3						P3	P3	P3							

P1 Complete: 22

P2 Complete: 13

P3 Complete: 32

Ave=22.33

ExpAve:Alpha =0.6, default=2, ignore I/O wait times. $P_{n+1} = \alpha * t_n + (1-\alpha) * p_n$

P1: 10 (3,2,5)

P2: 4 (2,2)

P3: 16 (2,3,5,6)

P1

2

$$0.6 * 3 + 0.4 * 2 = 2.6$$

$$0.6 * 2 + 0.4 * 2.6 = 2.24$$

P2

2

$$0.6 * 2 + 0.4 * 2 = 2$$

P3

2

$$0.6 * 2 + 0.4 * 2 = 2$$

$$0.6 * 3 + 0.4 * 2 = 2.6$$

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
RQ	123	123	123	23	23	13	13	12	12	13	13	13	1	1	3	3	13	13	13	1
P1	X	X	X										X	X						X
P2				X	X			X	XC											
P3						X	X			X	X	X			X	X	X	X	X	

	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
RQ	1	13	13	13																
P1	X	X	X	X																
P2																				
P3					X	X	X	X	X	X										

P1:=24, P2=9, P3=30, Ave=21

