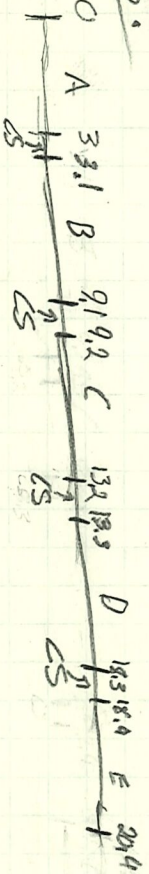


①

FCFS:

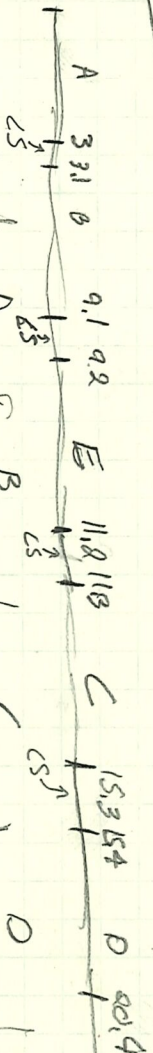
Process	Arrival Time	CPU Burst	PRIORITY
A	0	3	3
B	2	6	5
C	4	4	2
D	6	5	1
E	8	2	4

FCFS:



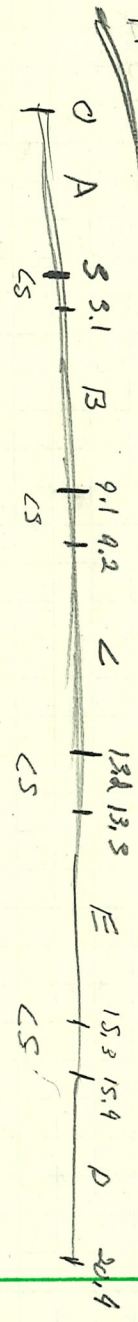
Finish time	A	B	C	D	E	Average
Turnaround time (T_t)	3	9.1	13.2	18.3	20.4	4.08
T_t/T_s	3	7.1	9.2	12.3	12.4	$\frac{44}{5} \approx 8.8$
	1	$\frac{71}{60} \approx 1.18$	$\frac{23}{10} = 2.3$	$\frac{123}{50} = 2.46$	$\frac{31}{5} = 6.2$	$\frac{3993}{1500} \approx 2.662$

SJF:



Finish Time	A	B	C	D	E	Average
T_t	3	9.1	15.3	20.4	11.2	4.08
T_t/T_s	3	7.1	11.3	14.4	3.2	7.8
	1	$\frac{71}{60}$	$\frac{113}{40}$	$\frac{72}{25}$	$\frac{8}{5}$	$\frac{5693}{3000} \approx 1.898$

① HRRN



Response ratio = $\frac{w+5}{5}$

② 9.1

$$\frac{(9.1-4)+4}{4} = \frac{9.1}{4} = 2.275$$

③ 13.2

$$\frac{(13.2-6)+5}{5} = 2.44 = \frac{41}{25}$$

$$\frac{(9.1-6)+5}{5} = \frac{8.1}{5} = 1.62$$

$$\frac{(13.2-8)+2}{2} = 3.6 = \frac{18}{5}$$

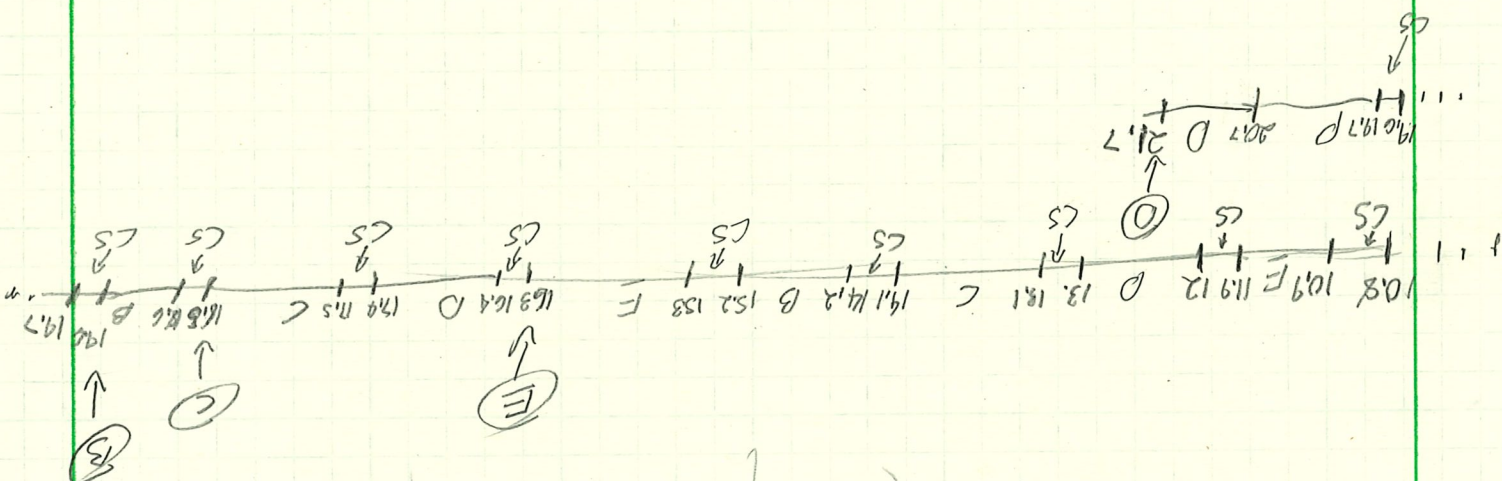
$$\frac{(9-8)+2}{2} = \frac{3}{2} = 1.55$$

Finish Time

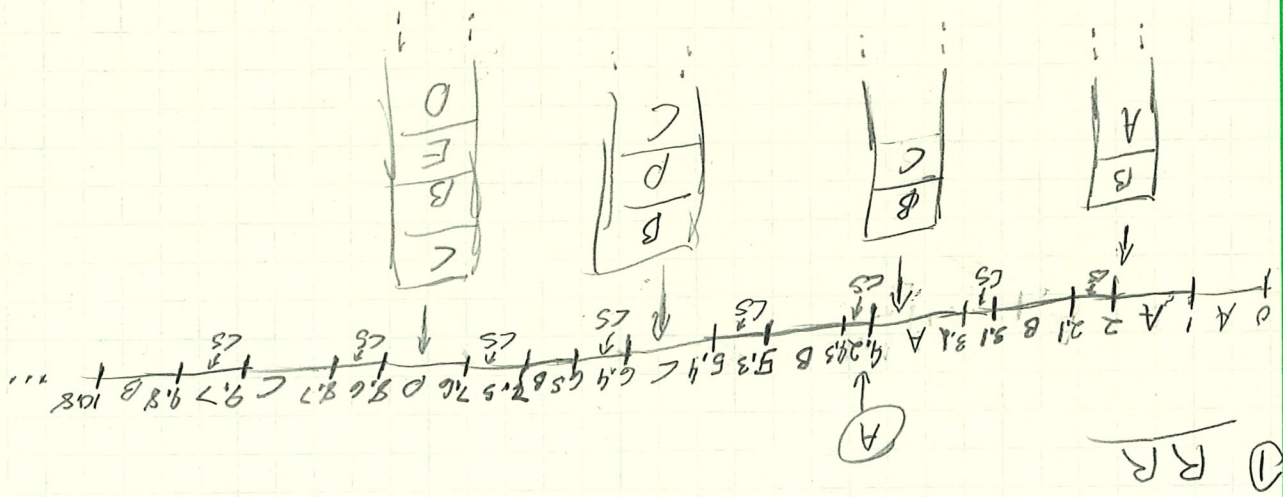
Turnaround Time (T_r)

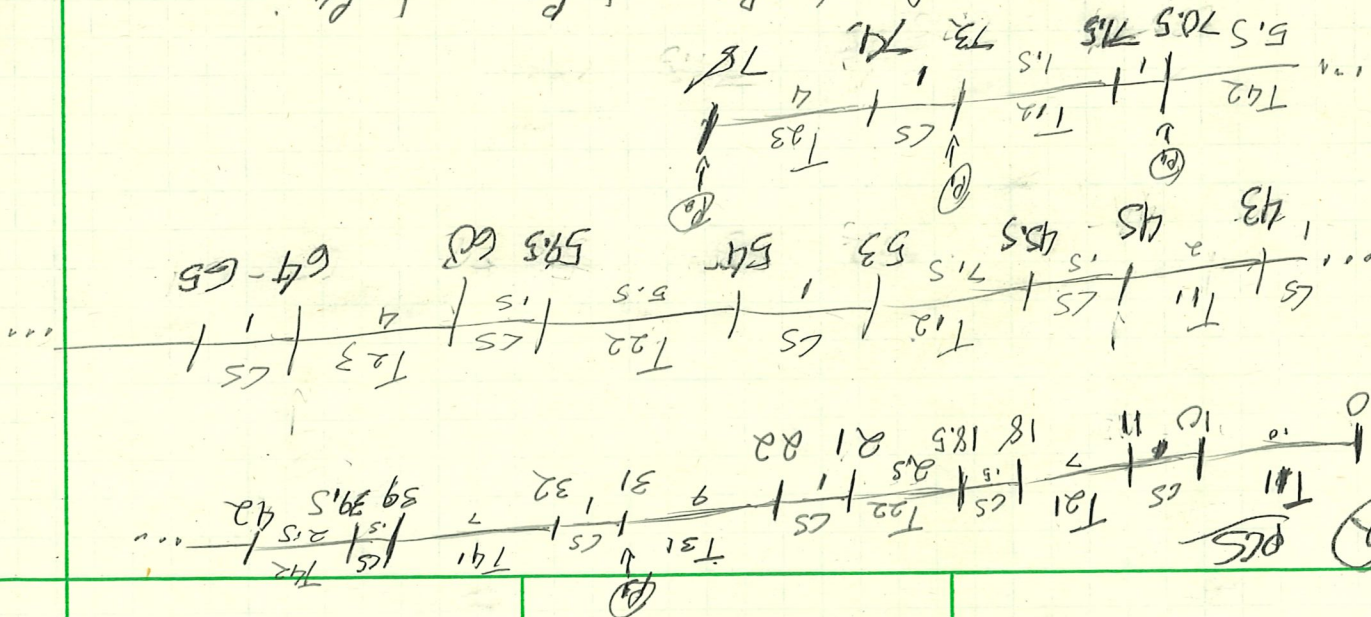
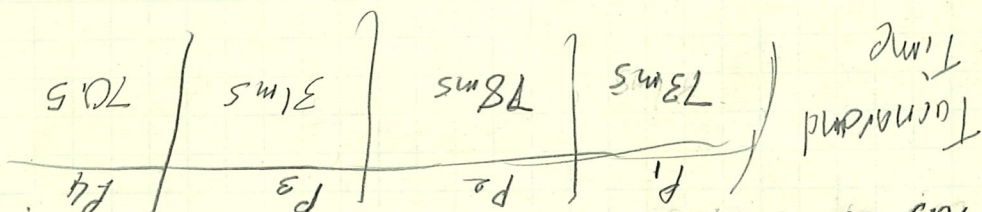
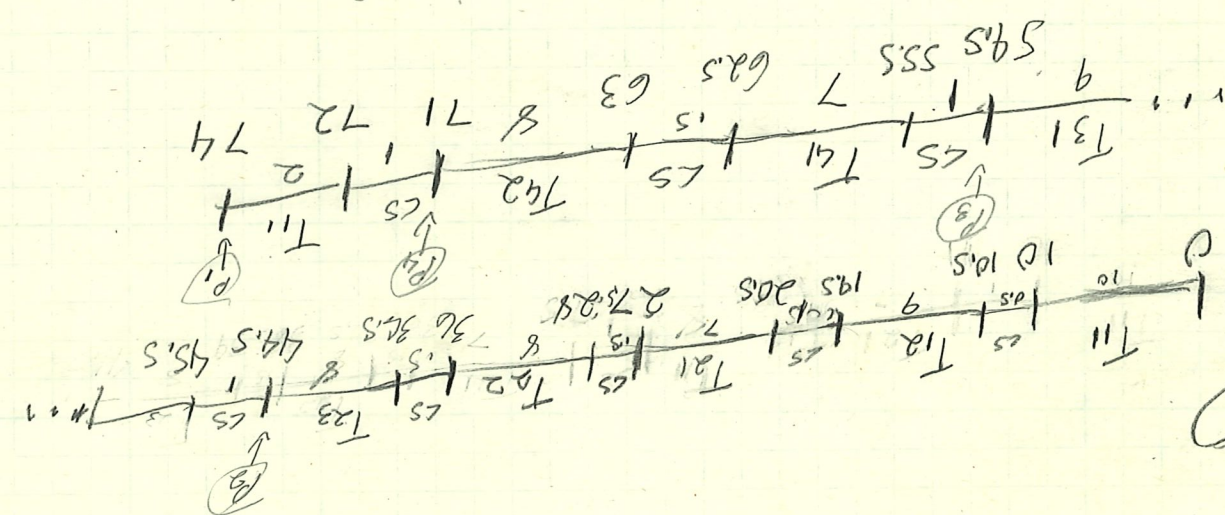
T_r/T_s

	A	B	C	D	E	Average
Finish Time	3	9.1	13.2	20.4	15.3	4.08
Turnaround Time (T_r)	3	7.1	9.2	14.4	7.3	8.2
T_r/T_s	1	$\frac{7.1}{6.0}$	$\frac{23}{10}$	$\frac{7.2}{25}$	$\frac{7.3}{20}$	$\frac{826}{375} \approx 2.20$



	Finish Time	Forward Time	T/T/15
A	4.2	4.2	1.4
B	19.6	17.6	4.4
C	18.5	14.5	3.625
D	21.7	15.7	3.14
E	16.3	8.3	4.15
Average	4.34	12.06	3.0497





T₁₂: 11:12
 T₁₃: 10:00
 T₁₄: 9:00
 T₁₅: 8:50
 T₁₆: 8:30
 T₁₇: 8:10
 T₁₈: 7:50
 T₁₉: 7:30
 T₂₀: 7:10
 T₂₁: 6:50
 T₂₂: 6:30
 T₂₃: 6:10
 T₂₄: 5:50
 T₂₅: 5:30
 T₂₆: 5:10
 T₂₇: 4:50
 T₂₈: 4:30
 T₂₉: 4:10
 T₃₀: 3:50
 T₃₁: 3:30
 T₃₂: 3:10
 T₃₃: 2:50
 T₃₄: 2:30
 T₃₅: 2:10
 T₃₆: 1:50
 T₃₇: 1:30
 T₃₈: 1:10
 T₃₉: 0:50
 T₄₀: 0:30
 T₄₁: 0:10
 T₄₂: 0:00

~~05/8.550~~
~~07.141~~
~~07.131~~
~~07.8.80~~
~~05/8.550~~
~~07.141~~
~~07.131~~
~~07.8.80~~

④ From the `main` page `pthread_attr_t` - `set scope` da monitoring for setting

the contention scope of a `pthread` in `linux`;

`int pthread_attr_t; set scope (pthread_attr_t * attr, int scope)`
The function returns zero if successful and any other number if unsuccessful.

You said an "exact" answer and this is exactly how `pthread` scope are set in `linux`.