



DOM
DOM | SEG
LUN | TER
MAR | QUA
MIÉ | QUI
JUE | SEX
VIE | SÁB
SÁB

[REDACTED]

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TRABALHO SISTEMAS OPERACIONAIS

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Aluno: Torye Ahemi Hurbes

Calcule waiting time, turnaround time e
média de turnaround time utilizando
os algoritmos FCFS, SJF, SJF com
preempção e round-robin (quantum=4)
para os seguintes casos

u)

P	PT	AT
P1	7	0
P2	3	2
P3	5	8

FCFS

waiting time:

$$P1 = 0$$

$$P2 = 5$$

$$P3 = 2$$

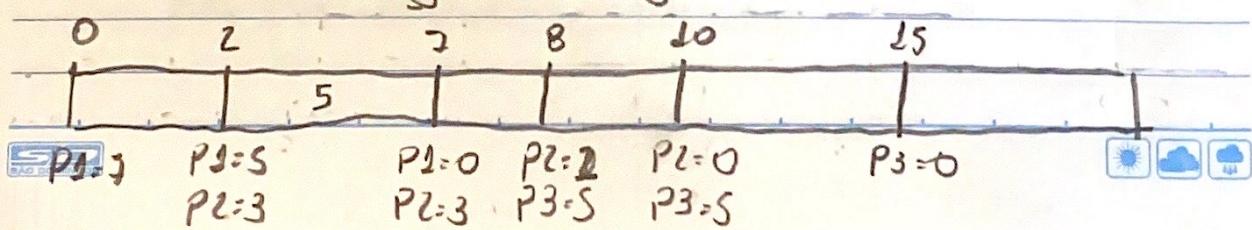
turnaround time:

$$P1 = 7$$

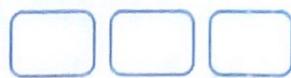
$$P2 = 8$$

$$P3 = 7$$

$$\text{Média} = \frac{7 + 8 + 7}{3} = \frac{22}{3} = 7,3$$



DOM DOM	SEG LUN	TER MAR	QUI MIÉ	QUI JUE	SEX VIE	SÁB SÁB
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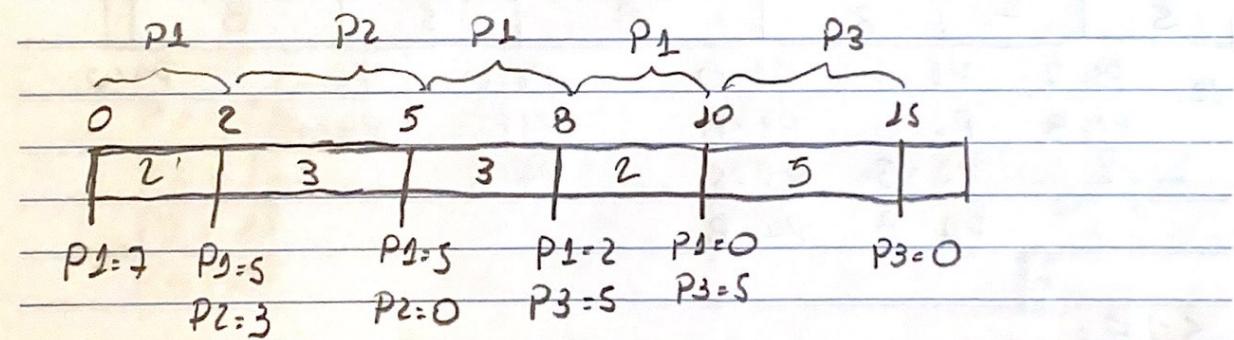


SJF:

WT	TT	
P1 = 0	P1 = 7	
P2 = 5	P2 = 8	
P3 = 2	P3 = 7	Mediu = $\frac{7+8+2}{3} = 7,3$

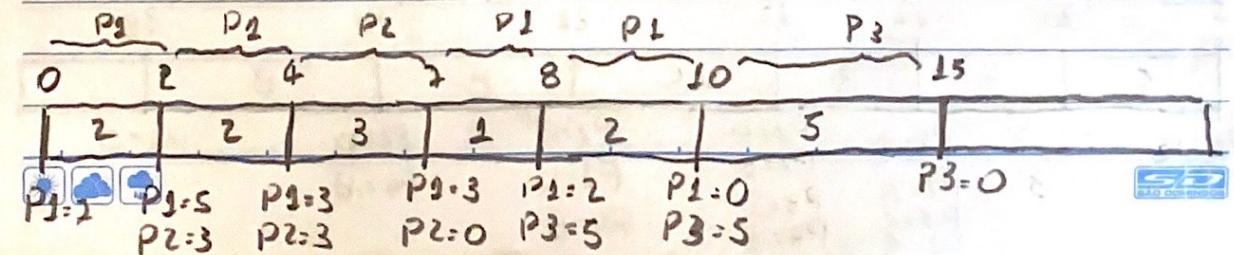
SJF com preempção

WT	TT	
P1 = 3	P1 = 10	
P2 = 0	P2 = 3	
P3 = 2	P3 = 7	Mediu = $\frac{10+3+7}{3} = 20/3 = 6,7$



Round-Robin ($q=4$)

WT	TT	
P1 = 3	P1 = 10	
P2 = 2	P2 = 5	
P3 = 2	P3 = 7	Mediu = $\frac{10+5+7}{3} = 7,3$



Three empty blue-outlined boxes for drawing or writing, with a vertical line and bracket below them.

P	PT	AT	
P1	12	5	
P2	8	10	
P3	5	14	
P4	8	14	

FCFS

WT TT

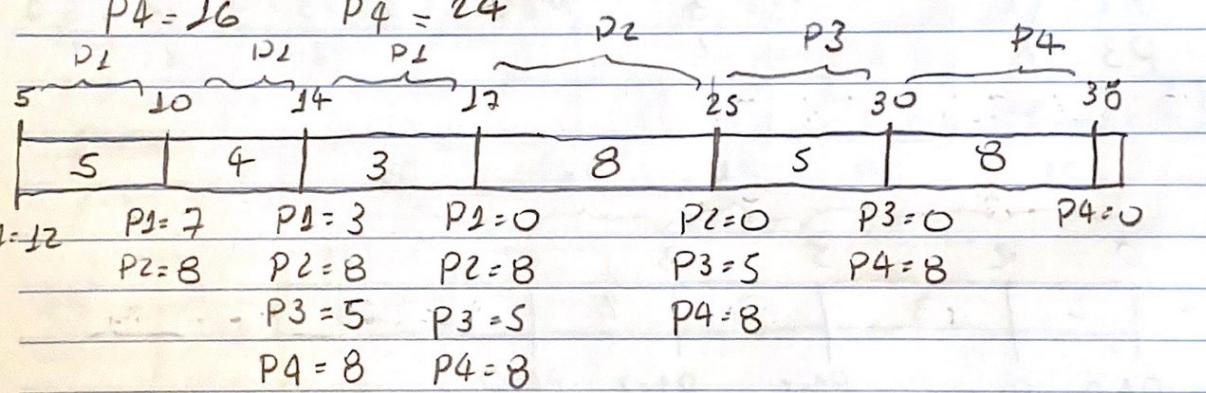
$$P_1 = 0 \quad P_1 = 12$$

$$P_2 = 7 \quad P_2 = 15 \quad Median = \frac{15 + 12 + 16 + 24}{4} = 16.25$$

$$P_3 = 21 \quad P_3 = 16$$

$$P_4 = 16 \quad P_4 = 24$$

L D L P L



SJF:

WT

TT

$$P_1 = 0$$

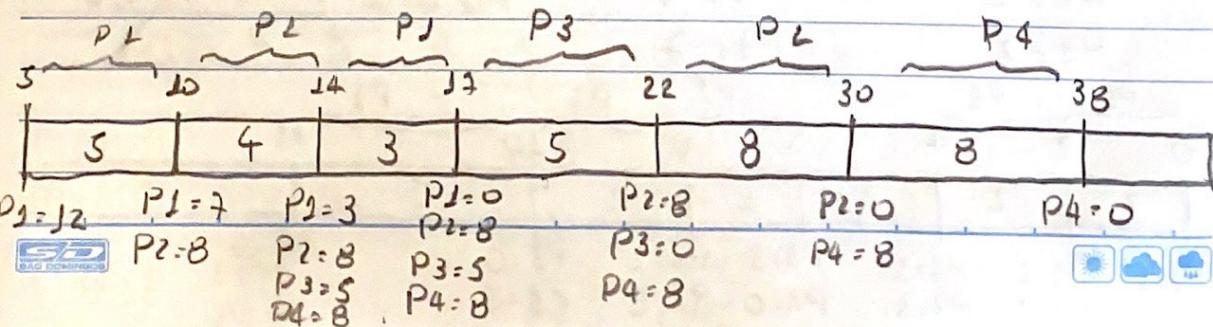
$$P_1 = 92$$

$$P_2 = 12$$

$$P_2 = 20$$

P3.3

$$P_3 = 8$$



DOM	SEG	TER	QUA	QUI	SEX	SÁB
DOM	LUN	MAR	MIÉ	JUE	VIE	SÁB



SJF com preempção

WT	TT						
P1 = 0	P1 = 12						
P2 = 12	P2 = 20						
P3 = 3	P3 = 8						
P4 = 16	P4 = 24						
$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	
5	10	14	17	22	30	38	
5 4 3 5 8 8							
P1=12	P1=7	P1=3	P1=0	P2=8	P2=0	P4=0	
P2=8	P2=8	P2=8	P2=8	P3=0	P4=8		
P3=5	P3=5	P3=5	P4=8				
P4=8	P4=8	P4=8					

Round Robin ($y = 4$)

WT	TT						
P1 = 21	P2 = 33						
P2 = 12	R2 = 20						
P3 = 12	P3 = 17						
P4 = 13	P4 = 22						
$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	$\sum P_i$	
5	10	14	18	22	26	30	35
5 4 4 4 4 4 1 4 3							
P1=12	P1=7	P1=7	P1=7	P1=7	P1=3	P2=3	P1=3
P2=8	P2=4	P2=4	P2=4	P2=4	P2=0	P3=0	P4=0
P3=5	P3=1	P3=1	P3=1	P3=1	P3=1	P4=4	
P4=8	P4=8	P4=8	P4=8	P4=4	P4=4		





DOM DOM	SEG LUN	TER MAR	QUA MIÉ	QUI JUE	SEX VIE	SÁB SÁB
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c)

	P	PT	AT
P1	5	0	
P2	10	7	
P3	7	10	
P4	4	12	
P5	8	12	
P6	5	20	
P7	5	27	

FCFS =

WT

TT

$$P1 = 0 \quad P1 = 5$$

$$P2 = 0 \quad P2 = 10$$

$$P3 = 7 \quad P3 = 14$$

$$P4 = 12 \quad P4 = 16$$

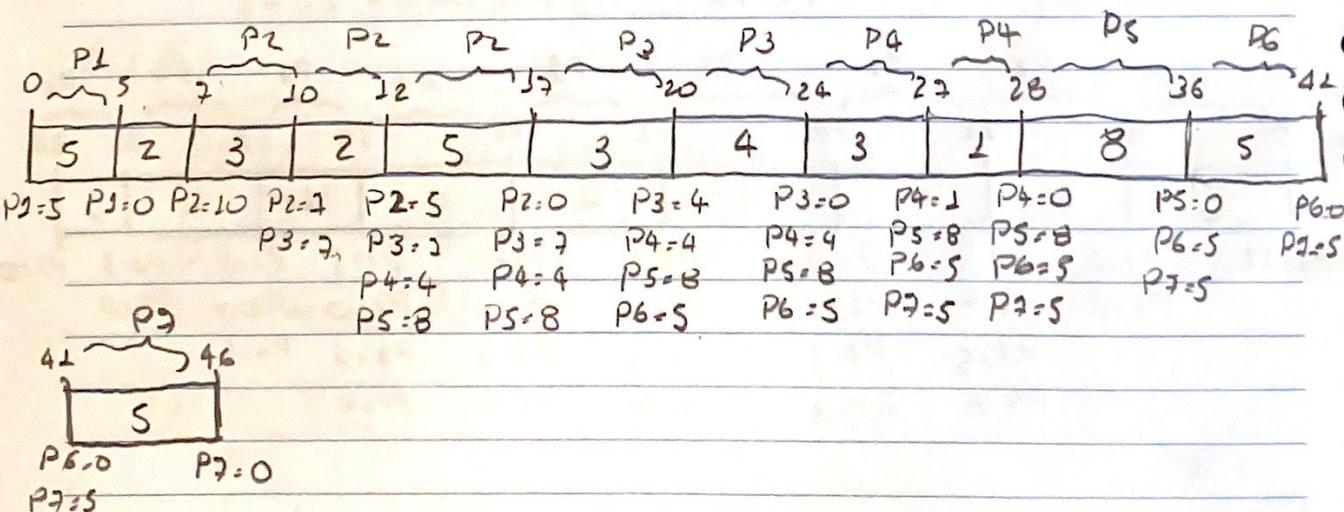
$$P5 = 16 \quad P5 = 24$$

$$P6 = 16 \quad P6 = 21$$

$$P7 = 14 \quad P7 = 19$$

$$\text{Medio WT} = \frac{5 + 10 + 14 + 16 + 24 + 21 + 19}{7}$$

$$\text{Medio TT} = 15,57$$



DOM	SEG	TER	QUA	QUI	SEX	SÁB
DOM	LUN	MAR	MIÉ	JUE	VIE	SÁB



SJF:

WT TT

$$P_1 = 0 \quad P_1 = 5$$

$$P_2 = 0 \quad P_2 = 10$$

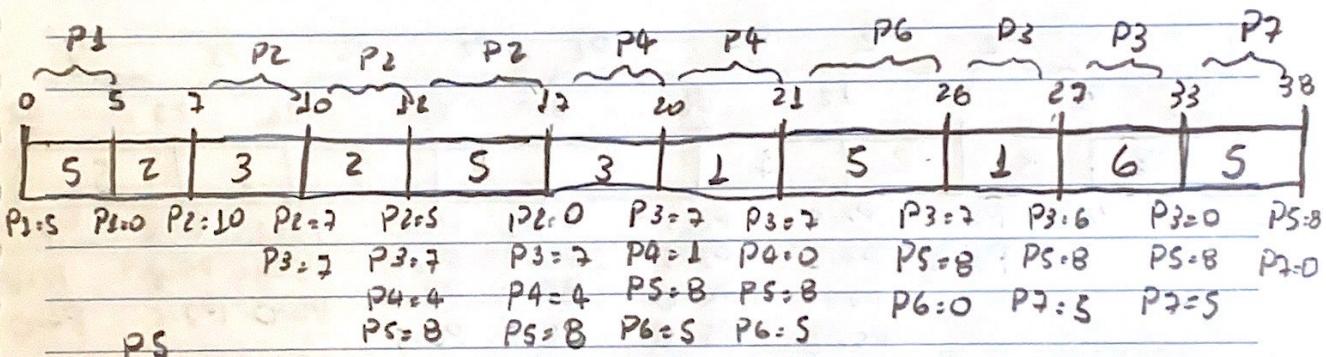
$$P_3 = 16 \quad P_3 = 23 \quad \text{Media} = \frac{5+10+23+9+34+6+11}{7} =$$

$$P_4 = 5 \quad D_4 = 9$$

$$P_5 = 26 \quad P_5 = 34$$

$$P_6 = 1 \quad P_6 = 6 \quad \text{Media} = 14$$

$$P_7 = 6 \quad P_7 = 11$$



38 46

B

$$PS = 8 \quad P7 = 0$$

$$P2 = 0$$





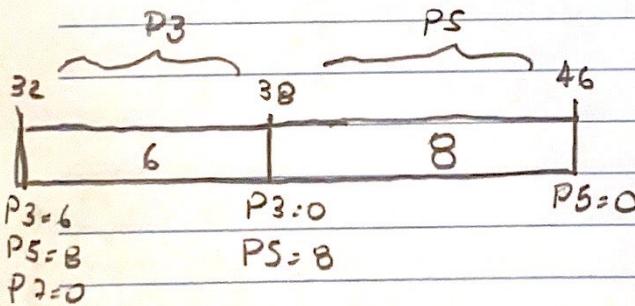
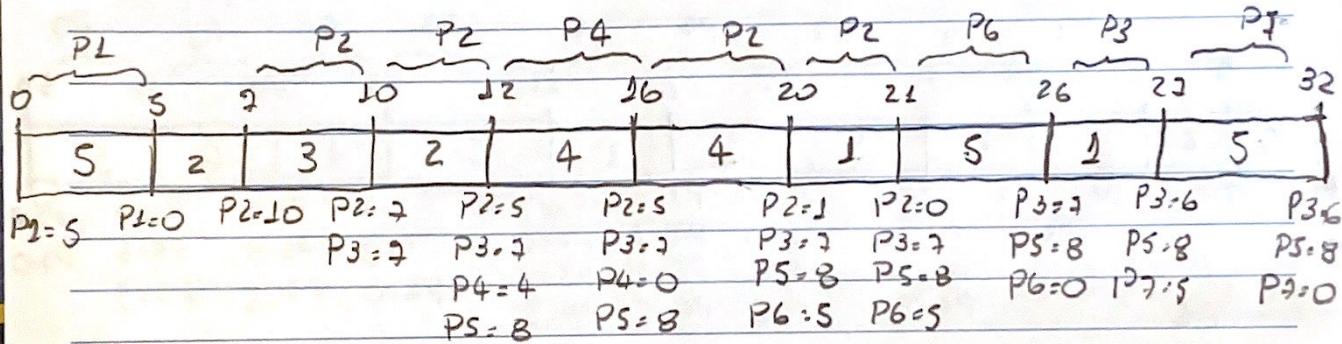
DOM DOM	SEG LUN	TER MAR	QUA MIÉ	QUI JUE	SEX VIE	SÁB SÁB
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SJF com preempção:

WT	TT
$P_1 = 0$	$P_1 = 5$
$P_2 = 4$	$P_2 = 14$
$P_3 = 21$	$P_3 = 28$
$P_4 = 0$	$P_4 = 4$
$P_5 = 26$	$P_5 = 34$
$P_6 = 1$	$P_6 = 6$
$P_7 = 0$	$P_7 = 5$

$$Mediana = \frac{5 + 14 + 28 + 4 + 34 + 6 + 5}{7}$$

$$Mediana = 13,7$$



DOM	SEG	TER	QUA	QUI	SEX	SÁB
DOM	LUN	MAR	MIÉ	JUE	VIE	SÁB



Round-Robin ($y=4$)

WT

TT

$$P_1 = 0$$

$$P_1 = 5$$

$$P_2 = 24$$

$$P_2 = 34$$

$$\text{Mejor} = \frac{5+39+28+6+24+22+16}{7}$$

$$P_3 = 22$$

$$P_3 = 28$$

$$P_4 = 2$$

$$P_4 = 6$$

$$\text{Mejor} = 20, 7$$

$$P_5 = 22$$

$$P_5 = 29$$

$$P_6 = 17$$

$$P_6 = 22$$

$$P_7 = 12$$

$$P_7 = 16$$

	P ₂	P ₂	P ₂	P ₃	P ₃	P ₄	P ₅	P ₅	P ₆
0	5	2	3	1	2	2	4	2	2
P ₁ =S	P ₁ =0	P ₂ =10	P ₂ =7	P ₂ =6					
		P ₃ =1	P ₃ =7	P ₃ =5	P ₃ =3				
				P ₄ =4	P ₄ =4	P ₄ =0	P ₄ =6	P ₄ =6	P ₄ =4
					P ₅ =8	P ₅ =8	P ₅ =8	P ₅ =5	P ₅ =4
						P ₆ =5	P ₆ =5	P ₆ =1	

	P ₂	P ₂	P ₇	P ₃	P ₅	P ₆	P ₇	P ₂
26	22	30	34	32	41	42	43	44
	1	3	4	3	4	1	1	1
P ₂ =6	P ₂ =5	P ₂ =1	P ₂ =0					
P ₃ =3	P ₃ =3	P ₃ =3	P ₃ =3	P ₃ =0	P ₅ =0	P ₆ =0	P ₇ =0	
P ₅ =4	P ₆ =1	P ₆ =1	P ₇ =1					
P ₆ =1	P ₇ =1	P ₇ =1	P ₂ =1					
P ₇ =5	P ₇ =5	P ₇ =1	P ₂ =1					

