On my honor, I have not given, nor received, nor witnessed any unauthorized assistance on this work.

Print name and sign: _____

Question:	1	2	3	4	5	Total	
Points:	4	4	6	8	8	30	
Score:							

1. (4 points) You write a Unix shell, but instead of calling fork and then exec to create a new process, you make a subtle mistake: you first call exec and then fork. How does this change the functioning of your shell (if it does). Explain your answer.

- 2. (4 points) Assume we have three jobs which arrive one after the other at time 0 in the following order:
 - Job A which needs 10 seconds of CPU time
 - Job B which needs 15 seconds of CPU time
 - Job C which needs 10 seconds of CPU time

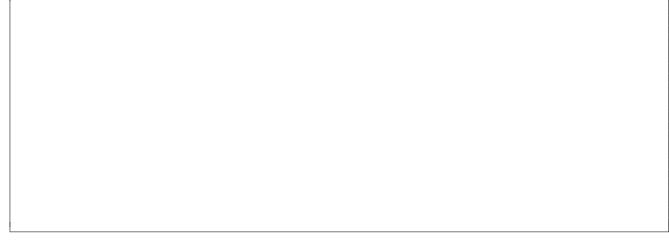
Assuming a SJF policy, at what time does B finish?

	nts) Explain v	when and how	w the trap t	able is initia	lized and v	who is respo	onsible for
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4.	and	C ar	rive	in ord	der, a	t time	e 0. Ea	ch of		jobs rur					ree jobs: er itself t	
		SBB 345	SCC 8		SBB 1 4	SCC S 1 7		2 :	C 2 6							
	(a)		oints and C		lculat	e the	averag	e res	ponse	time fo	or this r	ound ro	bin imp	lementa	tion for j	obs A
	(b)		oints 3, an		lculat	e the	averag	ge tur	rnarou	ı nd tim	e for th	is round	robin i	mplemei	ntation for	or jobs

5. Scheduling algorithms can be classified along two axes: preemptive versus non-preemptive and size-based versus non-size-based.

(a) (4 points) Explain the terms *preemptive* and *size-based* in the context of scheduling algorithms.



(b) (4 points) Fill in the table below, placing the five scheduling algorithms you learned about in this sprint (FIFO, SJF, STCF, RR, and MLFQ) into the appropriate quadrant.