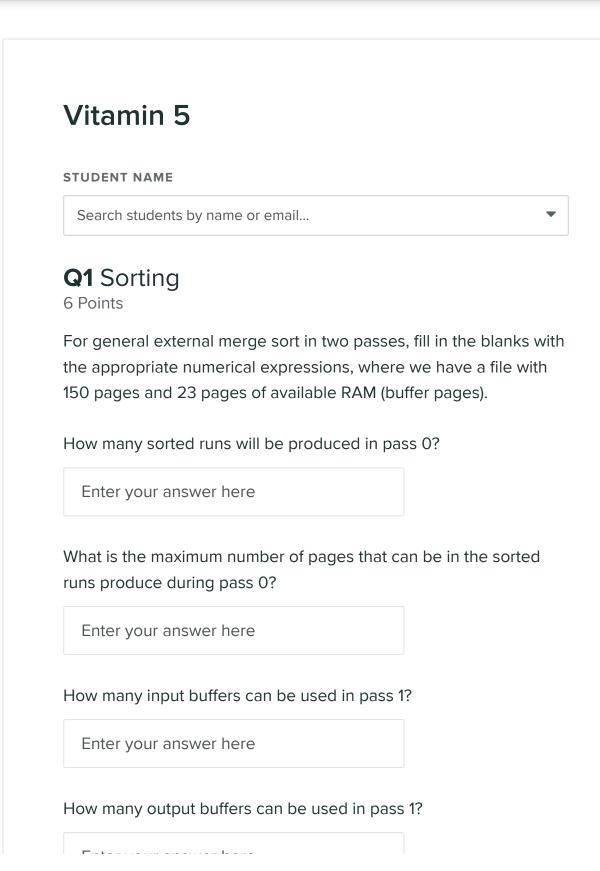
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0/2 Questions Answered



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Enter your answer nere How many sorted runs will be produced in pass 1? Enter your answer here How many pages will be in the sorted run(s) produced pass 1? Enter your answer here What is the total cost in I/Os to sort this file? Enter your answer here Save Answer **Q2** Hashing 7 Points We can process B x (B-1) pages of data with external hashing in two passes. For the first pass (the partitioning phase) of external hashing, answer the following questions with the appropriate number of pages being used where we have B pages of available RAM (buffer pages). **Q2.1 External Hashing**

How many	input	buffers
----------	-------	---------

O 1

O B

O B-1

O sart(R)

34.4(2)		
O B(B-1)		
How many partitions?		
O 1		
Ов		
O B-1		
O sqrt(B)		
O B(B-1)		
How many pages per partition? Assume a perfect hash function.		
O 1		
Ов		
O B-1		
O sqrt(B)		
O B(B-1)		

Q2.2 Pages for Hashing

If we had 10 buffer pages to externally hash elements, what is the maximum number of pages we could externally hash and guarantee that we would not have to do recursive partitioning?

Enter your answer here

Q2.3 Number of Pages to Ensure Recursive Partitioning

If we had 20 buffer pages to externally hash elements, what is the minimum number of pages we could externally hash to guarantee that we would have to use recursive partitioning?

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Enter your answer here Q2.4 Maximum Number of Pages w/o Recursive Partitioning If we had 15 buffer pages to externally hash elements, and a hash function that partitions elements uniformly, what is the maximum number of pages we could externally hash without having to recursively partition? Enter your answer here Q2.5 Cost of Hashing Assume that we have 72 KB of memory with 4 KB pages. What would be the cost in I/Os to externally hash a 128-page file? Assume that only one partition of 20 pages needs to be recursively partitioned once, and all other partitions are uniformly partitioned.

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Save All Answers

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