

1. Drew Sadler
2. Create A: | 5 | 15(free) |  
 Create B: | 5 | 3 | 12(free) |  
 Create C: | 5 | 3 | 3 | 9(free) |  
 Create D: | 5 | 3 | 3 | 5 | 4(free)|  
 Delete B: | 5 | 3(free) | 3 | 5 | 4(free)|  
 Delete C: | 5 | 3(free) | 3(free) | 5 | 4(free)|  
 Create E: | 5 | 4 | 2(free) | 5 | 4(free)|  
 Delete A: | 5(free) | 4 | 2(free) | 5 | 4(free)|  
 Create F: | 3 | 2(free) | 4 | 2(free) | 5 | 4(free)|
3. There are 2 chunks of 2 or less in the memory
4. 4 blocks free/ 20 total blocks = 20% fragmentation
5. Create A: | 2 | 18(free)|  
 Create B: | 2 | 4 | 14(free)|  
 Create C: | 2 | 4 | 1 | 13(free)|  
 Extend A: | 5 | 4 | 1 | 10(free)|  
 Reduce B: | 5 | 2 | 1 | 12(free)|  
 Create D: | 5 | 2 | 1 | 5 | 7(free)|  
 Delete C: | 5 | 2 | 1(free) | 5 | 7(free)|  
 Delete A: | 5(free) | 2 | 1(free) | 5 | 7(free)|  
 Create E: | 4 | 2 | 2(free) | 5 | 7(free)|
6. There are 2 blocks that have size 2 or less
7. I'm not sure since this method also ends up with 20% fragmentation, but allows for a majority of free space to exist in the last block
8. 3 blocks must be read in order to find the byte of the file

File Allocation Table(FAT)				
5	2	1	5	7 (free)

A

B

C

D

E

5	2	1 (free)	5	7 (free)
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A

B

C

D

E

5 (free)	2	1 (free)	5	7 (free)
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Free drive

B

C

D

E

4	2	2 (free)	5	7 (free)
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E

B

C

D

F/free  
drive

9.

10. 1KB block = 10,485,760 FAT entries

4KB block = 2,621,440 FAT entries

8KB block = 1,310,720 FAT entries

11. 1KB block = 31,457,280 bytes

4KB block = 7,864,320 bytes

8KB block = 3,932,160 bytes

12. 1KB block =  $10 + 3 \times (3) = 19$  microseconds2KB block =  $10 + 3 \times (2) = 16$  microseconds4KB block =  $10 + 3 \times (1) = 13$  microseconds