

# Lab Three

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## 1 PROBLEM ONE

Explain the difference between internal and external fragmentation.

Internal fragmentation occurs when fixed sized memory blocks are assigned to the processes. When the process is larger than requested memory, free space is created in the allocated block, resulting in internal fragmentation. On the other hand, external fragmentation occurs when variable sized memory blocks are assigned to the processes. When the process is removed, free space is created in the memory, resulting in external fragmentation.

## 2 PROBLEM TWO

Given five (5) memory partitions of 100KB, 500KB, 200KB, 300KB, and 600KB (in that order), how would optimal, first-fit, best-fit, and worst-fit algorithms place processes of 212KB, 417KB, 112KB, and 426KB (in that order)?

First-fit:

212KB	500KB
417KB	600KB
112KB	288KB(500KB-212KB)
426KB	no partition large enough

Best-fit:

212KB	300KB
417KB	500KB
112KB	200KB
426KB	600KB

Worst-fit:

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212KB	600KB
417KB	500KB
112KB	388KB(600KB-212KB)
426KB	no partition large enough

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