

Exercise 3:

Algorithms Memory partitions	First-fit	Best-fit	Worst-fit
300 KB	115 KB	---	---
600 KB	500 KB	500 KB	358 KB
350 KB	200 KB	---	200 KB
200 KB	---	200 KB	---
750 KB	358 KB 375 KB	358 KB 375 KB	115 KB 500 KB
125 KB	---	115 KB	---
Available memory	777 KB	777 KB	1102 KB

The most efficient algorithm in terms of using memory is the Best-fit because its internal fragmentation is smaller than the others. Then comes First-fit, though its available memory is the same as Best-fit but internal fragmentation is bigger. The worst algorithm is Worst-fit because it creates an external fragmentation which that cannot fit the last process (375 KB) to any partitions.

Exercise 4:

	ADVANTAGES	DISADVANTAGES
FIRST FIT	- Simple, fast, tends to produce larger free blocks.	- The remaining unused memory after allocation is wasted & External fragmentation
BEST FIT	- Memory utilized	- Slower in operations, may have tiny useless fragments
WORST FIT	- Reduce the rate of production of small gaps & works best if allocations are of medium sizes	- External fragmentation & tends to break large free blocks that large partitions cannot be allocated