Scheduling

1. The first time it gets 1 quantum. On succeeding runs it gets 2, 4, 8, and 15, so it must be swapped in 5 times.
2. The shortest one (the second one) will be taken: the shortest job first strategy.

50 + 150 = 200 + 300 = 500 + 85 = 585: sum = 1335/4 = 333,75

300 + 150 = 180 + 85 = 265 + 50 = 315: sum = 1060/4 = 265

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1. A program is CPU bound if it would go faster if the CPU were faster, i.e. it spends the majority of its time simply using the CPU. A program that computes new digits of π will typically be CPU-bound, it's just crunching numbers.

A program is I/O bound if it would go faster if the I/O subsystem was faster. Which exact I/O system is meant can vary; I typically associate it with disk. A program that looks through a huge file for some data will often be I/O bound, since the bottleneck is then the reading of the data from disk.

I/O bound threads usually have much tighter latency needs compared to compute bound threads on desktop workload. For example, a mouse click should be responded ASAP compared to a batch job running in background. If the response is slower, users switch operating systems. On the other hand, server workload does not really care about UI and hence compute bound threads should get preference. Schedulers can be chosen based on the majority of the workload.

1. 87.5 is the largest value.