

1) Worst case fragmentation = 1 frame – 1 byte = 1024 – 1 = 1023 byte

Worst case memory waste = Memory size/Page size * Worst case

fragmentation = 8 GB/1024B * 1023B = 8,581,545,984B = 8184MB = 7.99GB

(3)

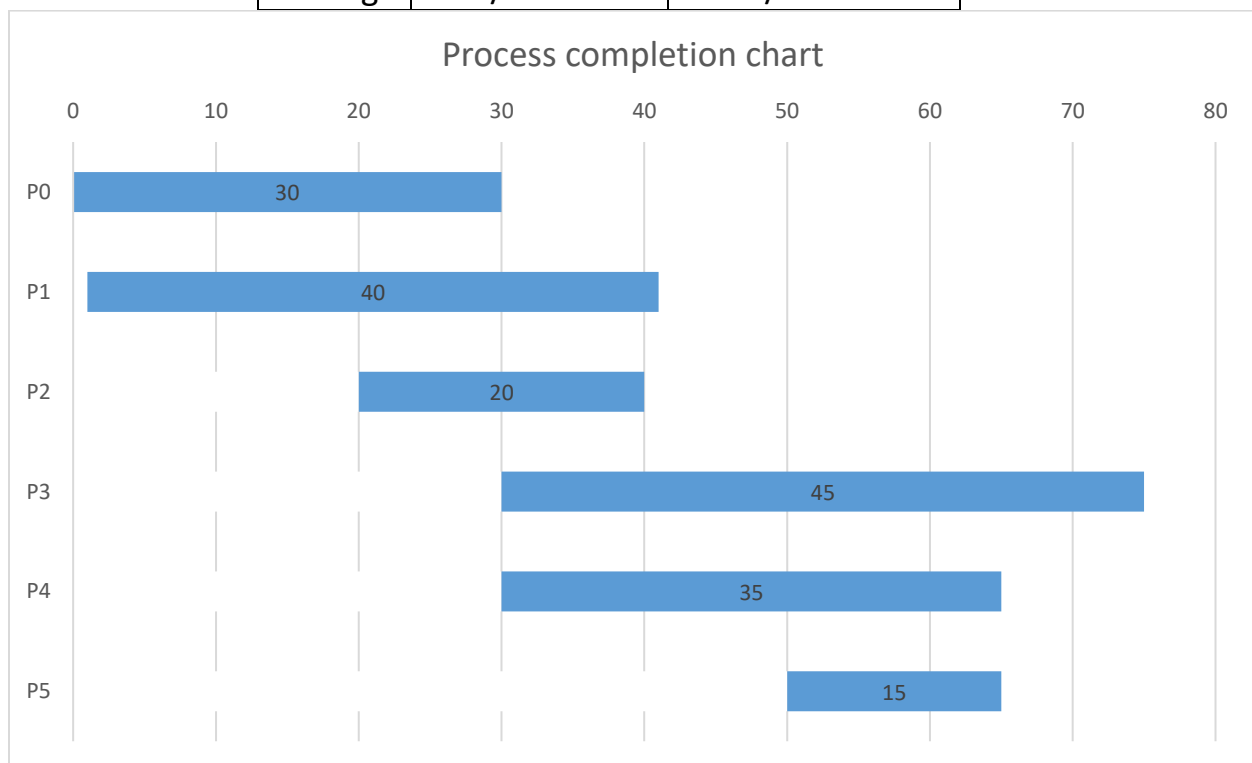
فرض:

(۱) بی شمار پردازنده داریم.

(۲) فرایندها پس از ورود، در صورت امکان در حافظه قرار می گیرند.

(۳) پیدا کردن فضای مناسب، زمانی نمی برد.

Process	Waiting time	Turnaround Time
P0	30 - 30 = 0	30 - 0 = 30
P1	40 - 40 = 0	41 - 1 = 40
P2	38 - 20 = 18	40 - 2 = 38
P3	72 - 45 = 27	75 - 3 = 72
P4	61 - 35 = 26	65 - 4 = 61
P5	60 - 15 = 45	65 - 5 = 60
Average	116 / 6 = 19.34	301 / 6 = 50.17



P* = Pointer

P0 at T	30kb full	20kb empty	10kb full	40kb P0(25kb) P*	20kb full	30kb empty	40kb full	30kb empty
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P1 at T+1	30kb full	20kb empty	10kb full	40kb P0	20kb full	30kb P1(20kb) P*	40kb full	30kb empty
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P2 at T+20	30kb full	20kb empty	10kb full	40kb P0	20kb P2(40kb) P*	30kb	40kb full	30kb empty
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P3 at T+30	30kb full	20kb empty	10kb full	40kb P3(25kb) P*	20kb P2(40kb)	30kb	40kb full	30kb empty
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P4 at T+30	30kb full	20kb empty	10kb full	40kb P3(25kb)	20kb P2(40kb)	30kb	40kb full	30kb P4(10kb) P*
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P5 at T+50	30kb full	20kb empty	10kb full	40kb P5(35kb) P*	20kb empty	30kb	40kb full	30kb P4(10kb)
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