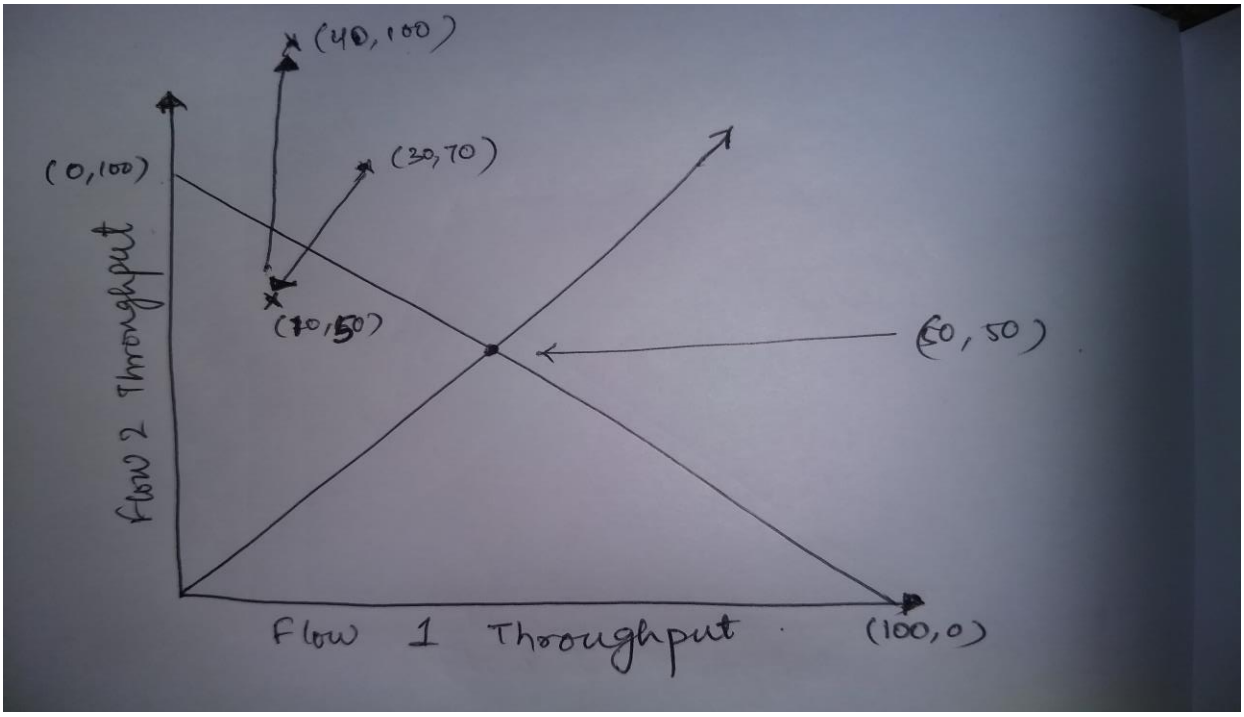
Multiplicative Increase Additive Decrease

The middle line is the fairness line which passes through coordinate (50,50).

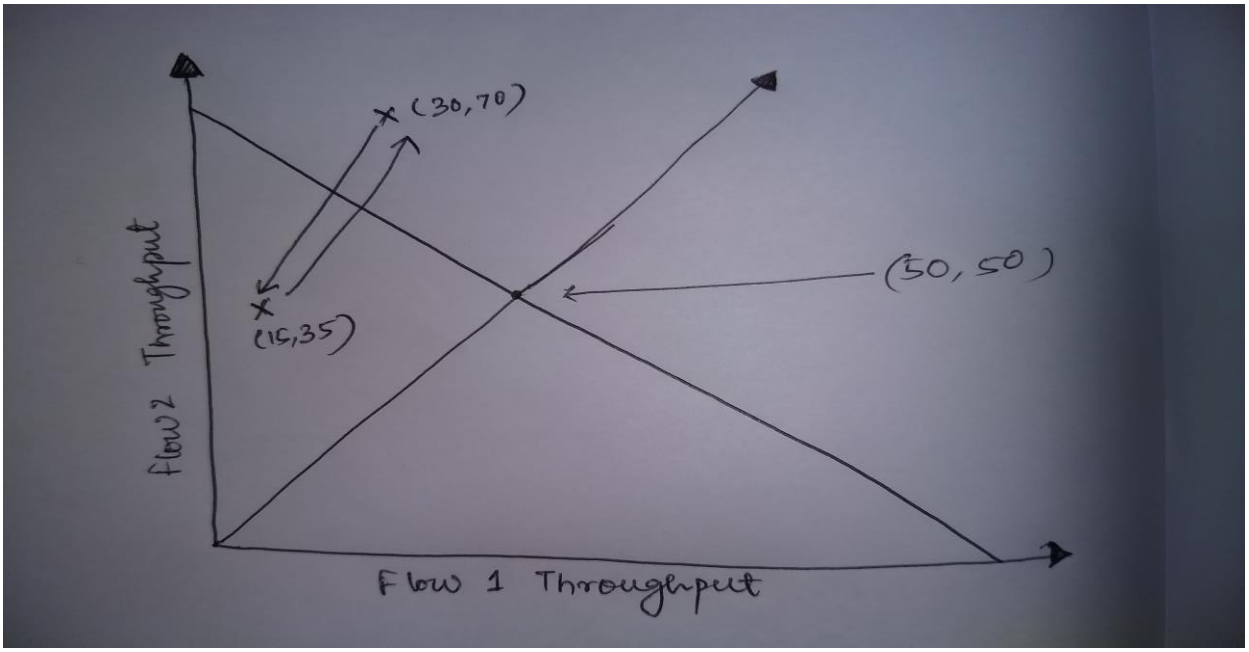
As we can see from figure the congestion window (cwnd) is (30,70) and as it is additive decrease, the cwnd decreases to (10,50). After that the cwnd multiplies itself with some constant (c = 2) to become (40, 100). As we see from the figure, the cwnd never converges to the fairness point (50,50) and it always moves away from the fairness line, so this approach is not fair.



Multiplicative Increase Multiplicative Decrease

The middle line is the fairness line which passes through coordinate (50,50).

As we can see from figure the congestion window (cwnd) is (30,70) and as it is multiplicative decrease, the cwnd decreases to (15,35). After that the cwnd multiplies itself with some constant (c = 2) to become (30, 70). As we see from the figure, the cwnd never converges to the fairness point (50,50) and it always ping pongs between same two points, so this approach is not fair.



Additive Increase, Additive Decrease

The middle line is the fairness line which passes through coordinate (50,50).

As we can see from figure the congestion window (cwnd) is (30,70) and as it is additive decrease, the cwnd decreases to (10,50). After that the cwnd adds itself with some constant (c = 20) to become (30, 70). As we see from the figure, the cwnd never converges to the fairness point (50,50) and it always ping pongs between same two points, so this approach is not fair.