

Homework Assignment No. 8

Due on Wednesday, March 17, 2004

1.) Problem P6.6 of the text.

[Answers: $C_4 = 203.89C_{inv}$, $C_3 = 36.64C_{inv}$, $C_2 = 5.89C_{inv}$, and $C_1 = C_{inv}$, path delay = 25.5, $N_{opt} = 5$, path delay(opt) = 18.5]

2.) Problem P6.9 of the text.

[Answers: a.) $5/3$, b.) $5/3$, c.) $LE_R = 8/3$, $LE_F = 2/3$ and d.) $LE_R = 4/3$, $LE_F = 2$]

3.) Problem P6.12 of the text.

[Ans. $C_4 = 173.21C_{inv}$, $C_3 = 25C_{inv}$, $C_2 = 11.55C_{inv}$, and $C_1 = C_{inv}$, path delay = 51.2]

4.) Problem P6.13 of the text.

[Ans. $C_5 = 1095.8C_{inv}$, $C_4 = 175.1C_{inv}$, $C_3 = 114.3C_{inv}$, $C_2 = 17.5C_{inv}$, and $C_1 = C_{inv}$, path delay = 88.9, optimum number of stages = 10]