

EE3009 Tutorial 9 (Solution)

Problem 1

$L / R = 10 \text{ kbits} / 10 \text{ Mbps} = 1 \text{ msec.}$

- a) Maximum utilization = $10 * (1 \text{ msec}) / (24 \text{ msec.} + 1 \text{ msec}) = 0.4$
- b) Maximum utilization = $20 * (1 \text{ msec}) / (24 \text{ msec.} + 1 \text{ msec}) = 0.8$
- c) Since $wL / R > (RTT + L / R)$, maximum utilization = 1

Problem 2

