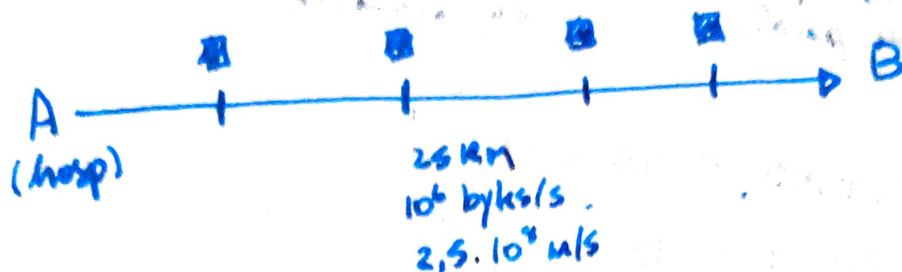


Ex. Atraso

Mirca Mei - 11208392



a) Atraso propagação = $\frac{25 \cdot 10^3 \text{ m}}{2,5 \cdot 10^8 \text{ m/s}} = \underline{10^{-4} \text{ s}}$

Atraso processamento = $\underline{5 \cdot 10^{-6} \text{ s}}$

Atraso transmissão = $5 \cdot \frac{8L \text{ bits}}{8 \cdot 10^6 \text{ bps}} = \underline{5L \cdot 10^{-6} \text{ s}}$

→ Atraso total = $10^{-4} + 5 \cdot 10^{-6} + 8L \cdot 10^{-6}$
 $= 100 \cdot 10^{-6} + 5 \cdot 10^{-6} + 8L \cdot 10^{-6}$
 $= (100 + 5 + 8L) \cdot 10^{-6}$
 $= \underline{5(L + 21) \cdot 10^{-5} \text{ s}}$

b) Atraso de propagação = $\underline{10^{-4} \text{ s}}$

Atraso de transm. = $\underline{L \cdot 10^{-6} \text{ s}}$

→ Atraso total = $10^{-4} + L \cdot 10^{-6} + 4,25 \cdot 10^{-3}$
 $= 100 \cdot 10^{-6} + L \cdot 10^{-6} + 4250 \cdot 10^{-6}$
 $= \underline{(4350 + L) \cdot 10^{-6} \text{ s}}$

C)

$$\underbrace{5(L + 24) \cdot 10^{-6}}_{\text{contagens de pontos}} = \underbrace{(4350 + L) \cdot 10^{-6}}_{\text{contagens de circuitos}}$$

$$5L + 105 = 4350 + L$$

$$4L = 4245$$

$$\underline{L = 1061,25 \text{ bits}}$$