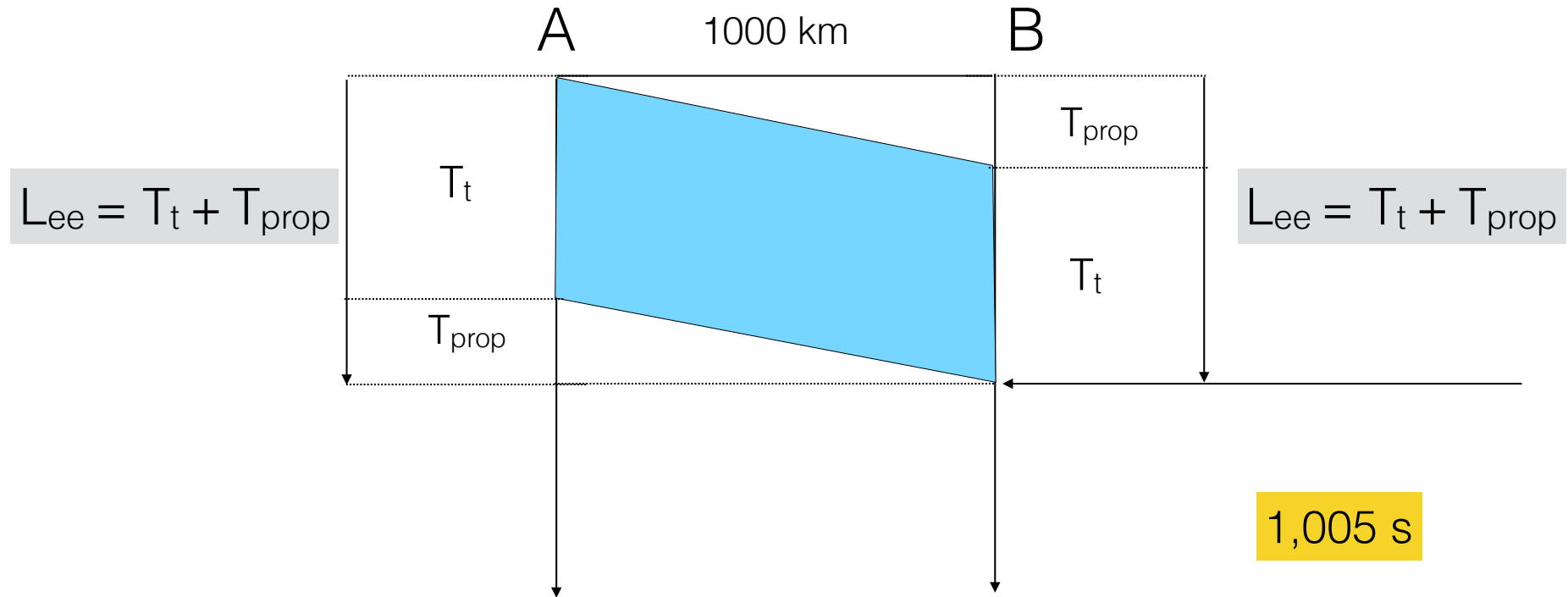


ficha 1

1)



$$T_{prop} = D / V_{prop}$$

$$T_{prop} = 1000 \text{ Km} / 200\,000 \text{ Km/s} = 0.005 \text{ s}$$

$$T_t = F / V_t$$

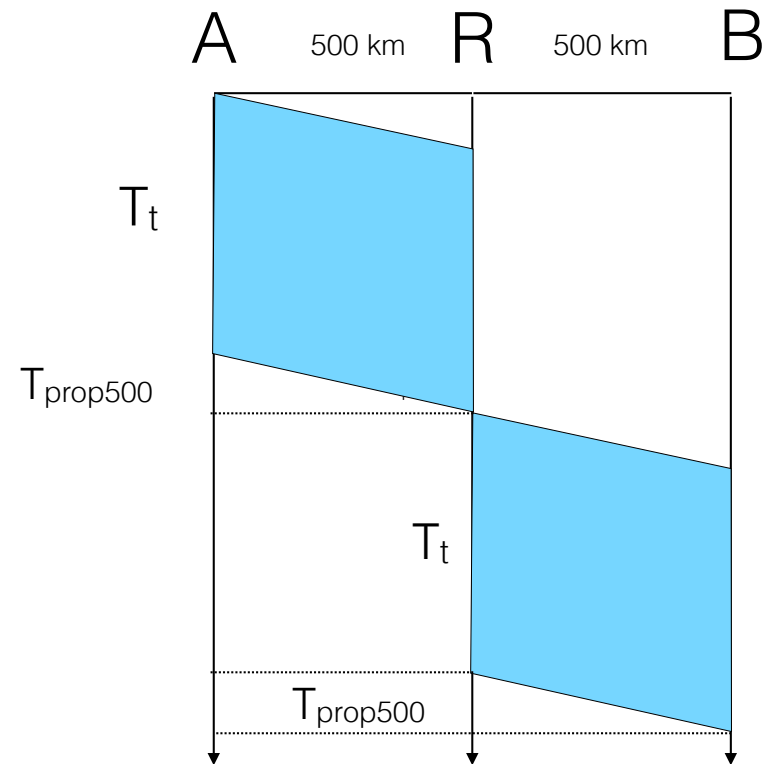
$$T_t = 10^6 \text{ bits} / 10^6 \text{ bits/s} = 1,0 \text{ s}$$

2a)

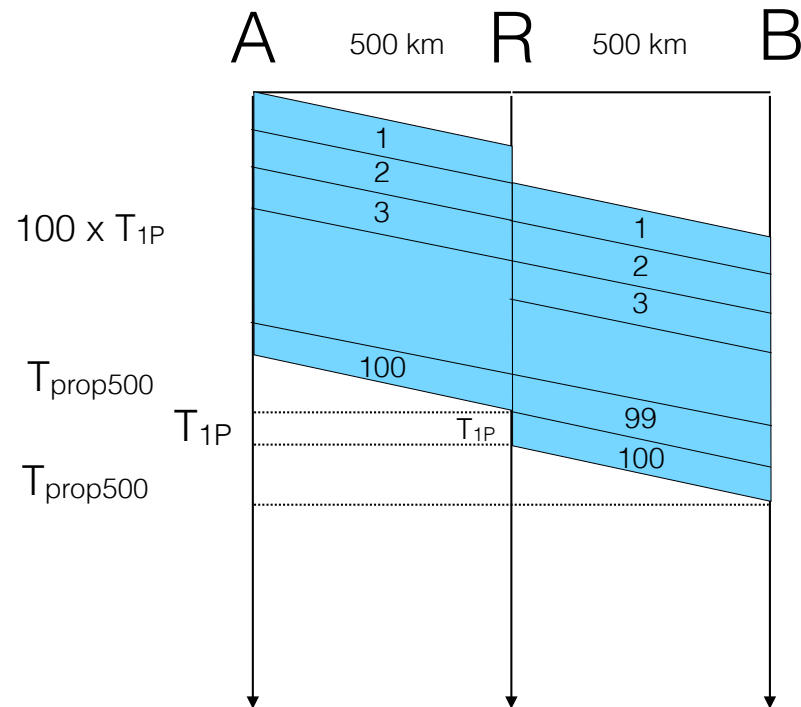
$$L_{ee} = T_t + T_{\text{prop}500} + T_t + T_{\text{prop}500}$$

$$L_{ee} = 2 \times T_t + T_{\text{prop}}$$

2,005 s



2b)



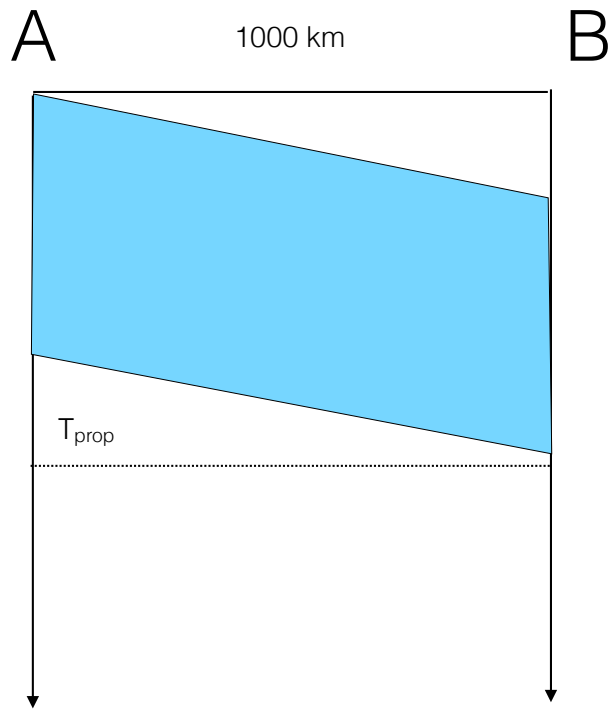
$$T_{1P} = 10^4 \text{ bits} / 10^6 \text{ bits/s} = 0.01 \text{ s}$$

$$L_{ee} = 100 \times T_{1P} + T_{prop500} + T_{1P} + T_{prop500}$$

$$L_{ee} = 101 \times T_{1P} + T_{prop}$$

1,015 s

1)



$$L_{ee} = T_t + T_{prop}$$

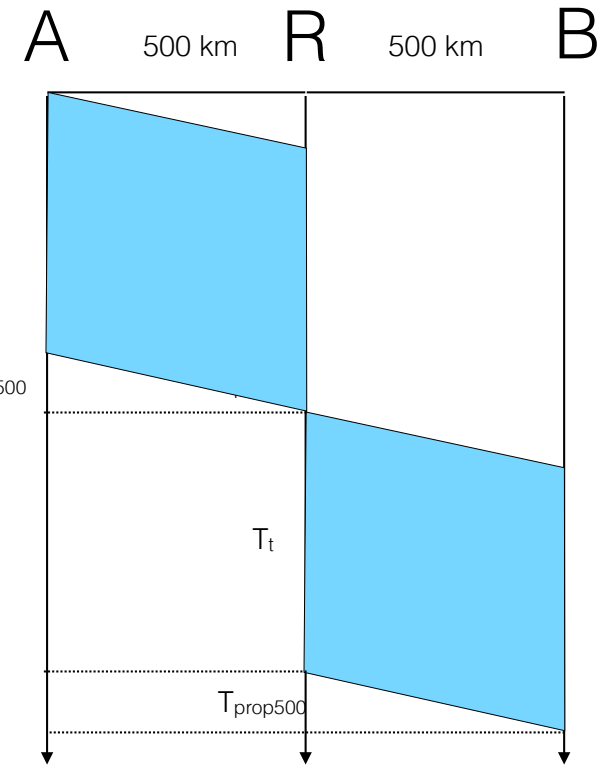
1,005 s

$$L_{ee} = T_t + T_{prop500} + T_t + T_{prop500}$$

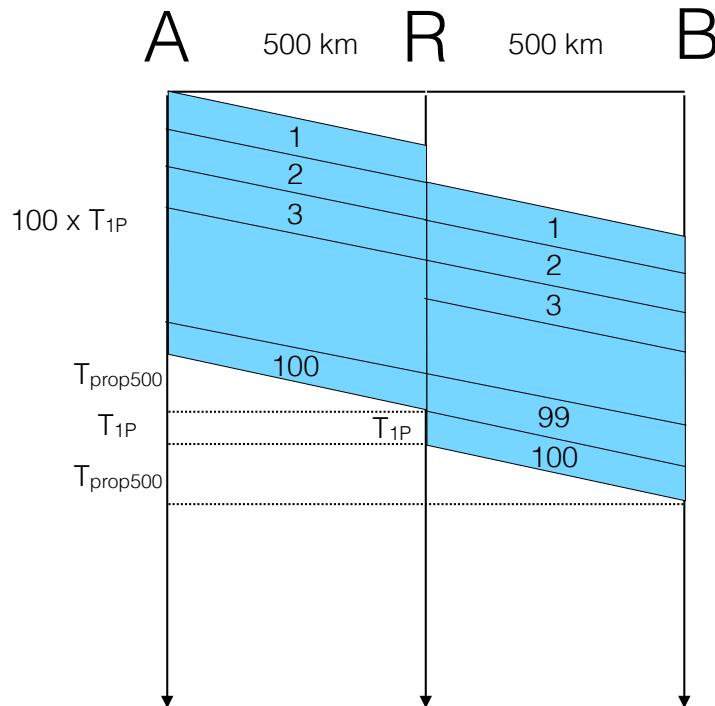
$$L_{ee} = 2 \times T_t + T_{prop}$$

2,005 s

2a)



2b)



$$T_{1P} = 10^4 \text{ bits} / 10^6 \text{ bits/s} = 0.01\text{s}$$

$$L_{ee} = 100 \times T_{1P} + T_{prop500} + T_{1P} + T_{prop500}$$

$$L_{ee} = 101 \times T_{1P} + T_{prop}$$

1,015 s

$$L = \text{\#pacotes} \times T_{T1p}$$

$$L = 100 \times (2 \times T_{1P} + 4 \times T_{\text{prop}500})$$

$$L = 100 \times (2 \times 0.01 \text{ s} + 2 \times T_{\text{prop}1000})$$

$$L = 100 \times (2 \times 0.01 \text{ s} + 2 \times 0.005 \text{ s})$$

$$L = 100 \times 0.03 =$$

3 s

