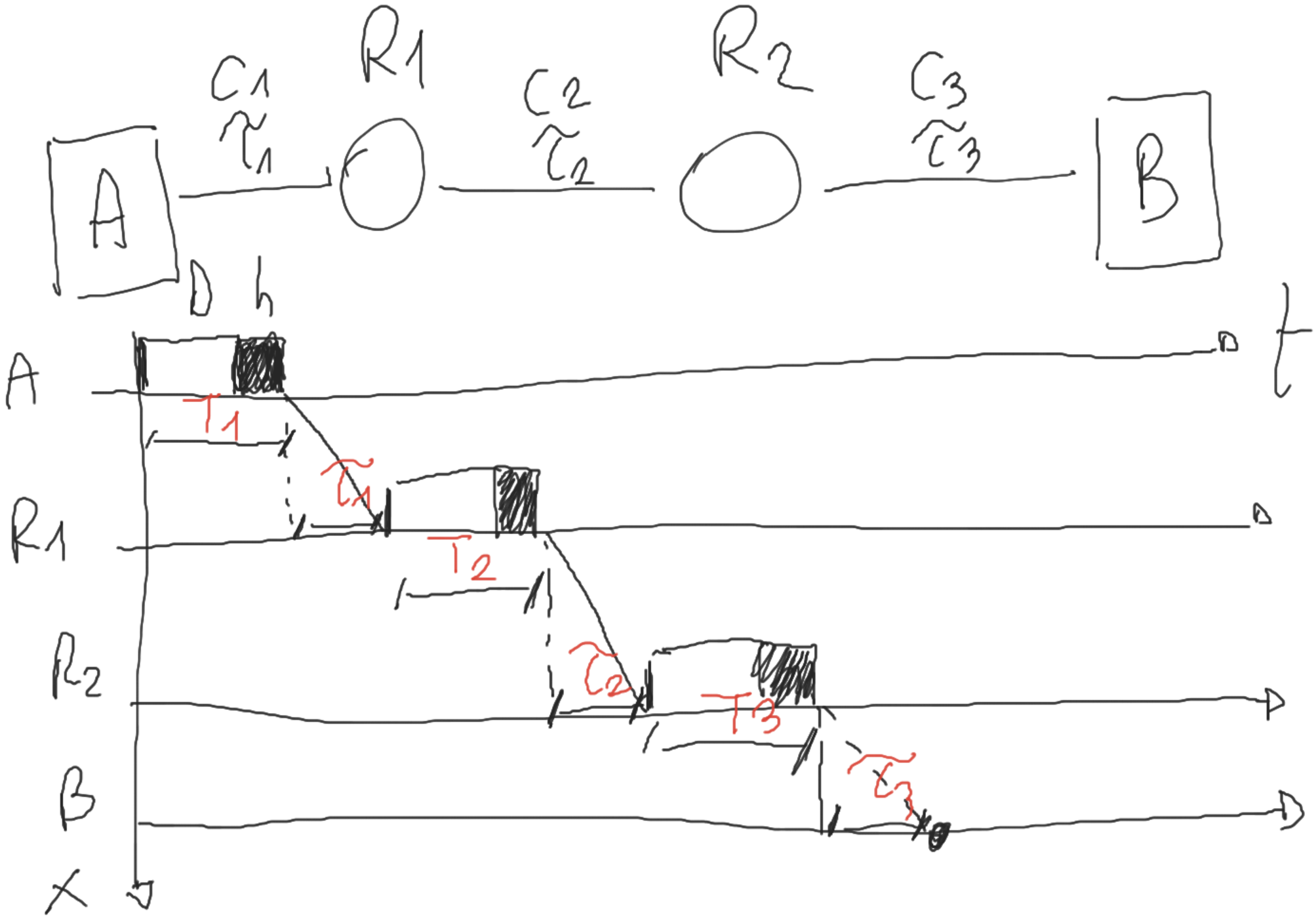

A
B
R1
R2
C1
C2
C3
τ1
τ2
τ3
D
h
t
x
T1
T2
T3

$$T_1 = \frac{D + h}{C_1}$$

$$\tau_1$$

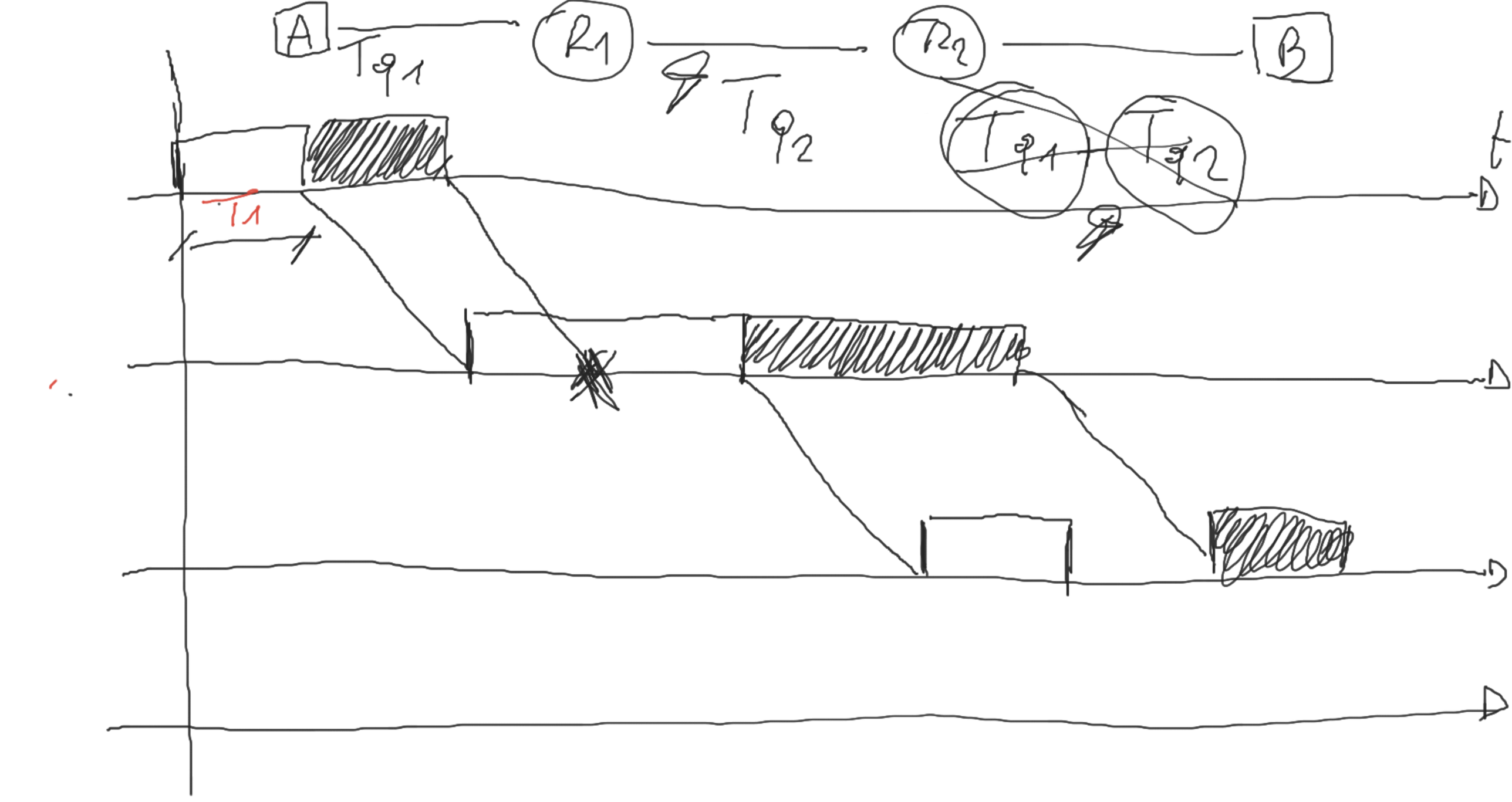
$$T_2 = \frac{D + h}{C_2}$$

$$\tau_2$$

$$T_3 = \frac{D + h}{C_3}$$

$$\tau_3$$

$$T_{e2e} = \frac{D+h}{c_1} + \tau_1 + \frac{D+h}{c_2} + \tau_2 + \frac{D+h}{c_3} + \tau_3$$

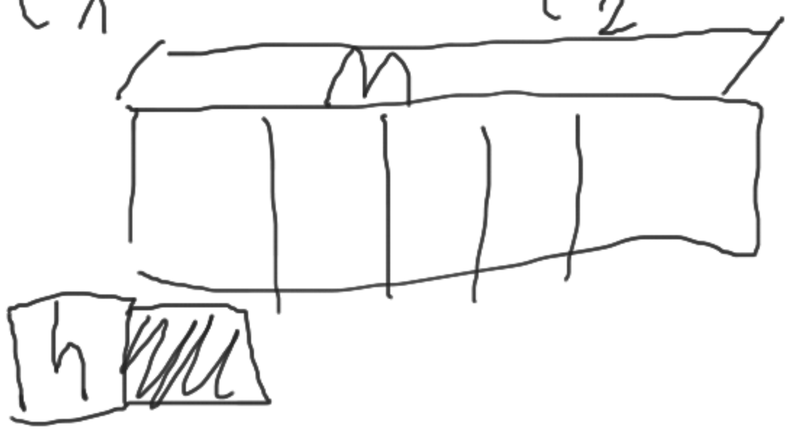

A
R1
R2
B
t
T1

$$T_{TOT} = T_{e2e} + (n-1)\frac{L}{C_{BOTTLENECK}}$$

n = N° DI FRAMMENTI

$$T_{TOT} = \frac{D+h}{C_1} + \tau_1 + \frac{2D+h}{C_2} + \tau_2 + \frac{D+h}{C_3} + \tau_3 + \cancel{+ \frac{D+h}{C_4}}$$

$$\frac{h+D/m}{c_1}+\tau_1+\frac{h+D/m}{c_2}+\tau_2+\frac{h+D/m}{c_3}+\tau_3+(m-1)\frac{h+D/m}{c_2}$$



$$-\frac{h}{c_2}-\frac{D/m}{c_2}$$

$$\frac{D}{m}$$

$$\frac{h}{c_1}+\frac{h}{c_2}+\frac{h}{c_3}+\tau_1+\tau_2+\tau_3+\frac{D}{m}\left(\frac{1}{c_1}+\frac{1}{c_2}+\frac{1}{c_3}\right)+\frac{mh}{c_2}+\frac{D}{c_2}$$

$$\frac{D}{m}\left(\frac{1}{C_1}+\frac{1}{C_2}+\frac{1}{C_3}\right)+\frac{mh}{C_2}-\frac{D}{M}\frac{1}{C_2}=$$

$$=\frac{D}{m}\left(\frac{1}{C_1}+\frac{1}{C_2}+\frac{1}{C_3}-\frac{1}{C_2}\right)+\frac{m}{C_2}h=$$

$$=\boxed{\frac{D}{m}\left(\frac{1}{C_1}+\frac{1}{C_3}\right)+\frac{mh}{C_2}}$$

$$\frac{h}{c_2} - \frac{1}{M^2}\left(\frac{D}{c_1} + \frac{D}{c_3}\right) = 0$$

$$\frac{h}{c_2} = \frac{1}{M^2}\left(\frac{D}{c_1} + \frac{D}{c_3}\right)$$

$$M^2 = \frac{c_2}{h}\left(\frac{D}{c_1} + \frac{D}{c_3}\right)$$

$$M = \sqrt{\frac{c_2}{h}\left(\frac{D}{c_1} + \frac{D}{c_3}\right)}$$

$$\frac{\frac{D}{m}}{C_1} + \frac{\frac{D}{m}}{C_2} + \frac{\frac{D}{m}}{C_3} + \underbrace{\tau_1 + \tau_2 + \tau_3 +}$$

$$+ (m-1)\frac{\frac{D}{m}}{C_2}$$

$$\lim_{m \to \infty} T_{tot}(m) \longrightarrow \frac{D}{C_2} + \tau_1 + \tau_2 + \tau_3$$

$$L = 75 \text{ Byte}$$

$$C = 64 \text{ Mbps}$$

$$T_{TX} = \frac{L}{C} = \frac{75 \cdot 8}{64} \cdot 10^{-6} = 9{,}37 \mu s$$

$$N = 3 \cdot 10^8 \ m/s$$

$$T_{TX} = 9,37 \ \mu s$$

$$d = N \cdot T_{TX} = 3 \cdot 10^8 \cdot 9,37 \cdot 10^{-6}$$