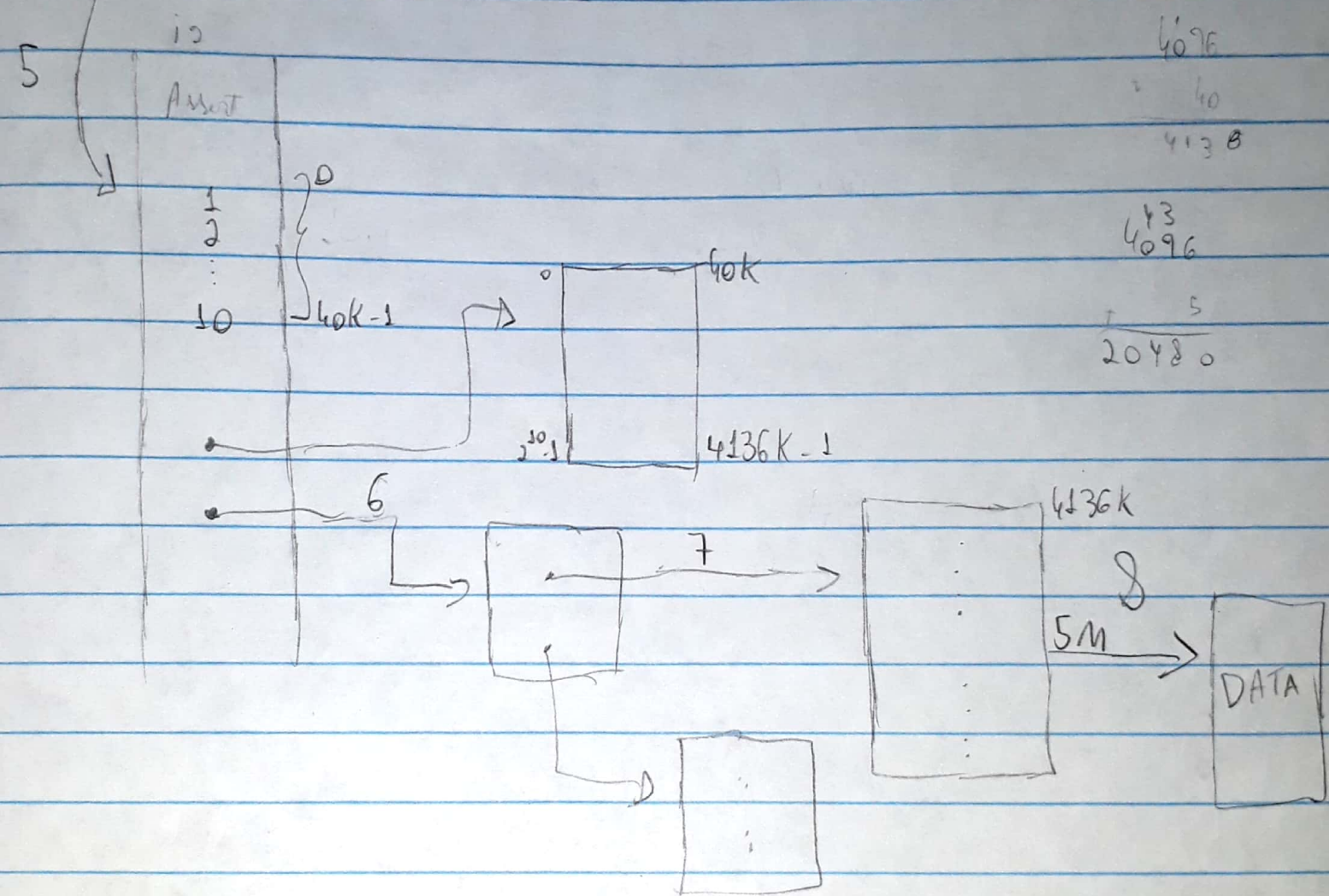
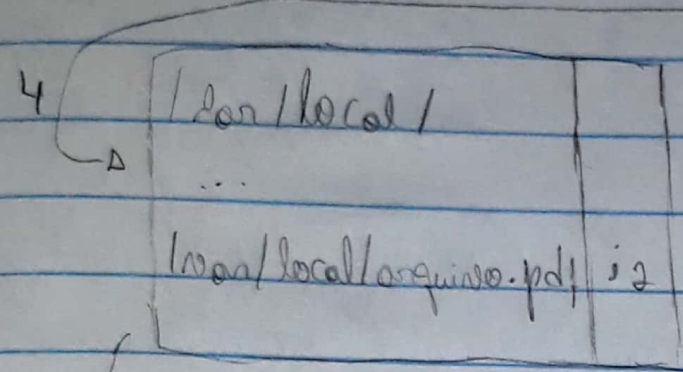
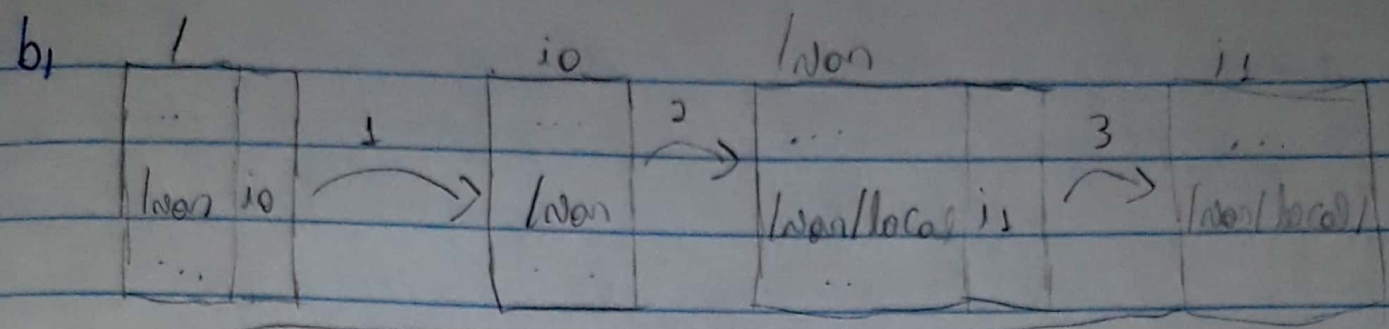


$$5. a, \text{ TBD} = 4\text{KB} = 2^{12}$$

$$T_1 = 32\text{bits} = 2^5\text{bits} = \frac{2^5}{2^3} = 2^2\text{ bytes}$$

$$\text{TBD}/T_1 = 2^{12}/2^2 = 2^{10}\text{ blocks}$$

$$\begin{aligned} T_{\text{am max}} &= \left(N + \left(\frac{\text{TBD}}{T_1} \right) + \left(\frac{\text{TBD}}{T_1} \right)^2 + \left(\frac{\text{TBD}}{T_1} \right)^3 \right) \cdot \text{TBD} \\ &= (10 + 2^{10} + 2^{20} + 2^{30}) \cdot 2^{12} = 10 \cdot 2^{12} + 2^{22} + 2^{32} + 2^{42} \\ &= [40\text{KB} + 4\text{MB} + 4\text{GB} + 4\text{TB}] \end{aligned}$$



8 operações de disco