

$$\text{space of logical address} = \log_2 [(\text{num of pages}) \times (\text{page size})] \quad (3) \text{ الف}$$

$$\Rightarrow = 256 \times 4KB = 2^8 \times (2^2 \times 2^{10}) = 2^{20} \rightarrow \text{num of bits} = 20$$

$$\text{space of physical address} = \log_2 [(\text{num of frames}) \times (\text{frame size})] \quad (4) \text{ ب}$$

$$\Rightarrow = 64 \times 4KB = 2^6 \times (2^2 \times 2^{10}) = 2^{18} \rightarrow \text{num of bits} = 18$$