

Consider the page table shown in Figure 3.1 for a system with 12-bit virtual and physical addresses and with 256-byte pages. The list of free page frames is D, E, F (that is, D is at the head of the list, E is second, and F is last). Convert the following virtual

Page	Page Frame
0	—
1	2
2	C
3	A
4	—
5	4
6	3
7	—
8	B
9	0

Answers:

- Page Size = 256-byte = 2^8 byte \Rightarrow 8-bit offset
- 12-bit virtual address
- 12-bit physical address
- 9EF has offset: EF, for page 9 we find frame 0 so result is 0EF
- 111 has offset: 11, for page 1 we find frame 2 so result is 211
- 700 has offset: 00, because we can't find page 7 frame in virtual memory, so we get the first frame from free page frames list. We got D, so result is D00
- The same for 0FF, it has offset FF, we can't find page frame with page 7, so we get the second frame from free page frames list. Then we got E, so result is