1. 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

Figure 3.1: Page table for Exercise 1

addresses to their equivalent physical addresses in hexadecimal. All numbers are given in hexadecimal. (A dash for a page frame indicates that the page is not in memory.)

Because we have 12 bit as virtual address, and 256 byte per page, that mean we need 8 bits for offset ($2^8 = 256$)

9EE → index: 0x9, offset: 0xEE → physical address: 0EE

111 → index: 0x1, offset: 0x11 → physical address: 211

700 → index: 0x7, offset: 0x00. But page 7 isn't there, so we add the first frame from free frame list: frame D. → physical address: D00

0FF → index: 0x0, offset: 0xFF. But page 0 isn't there, so we add the first frame from the remaing free frame list: frame E → physical address: EFF