Q11. In a certain computer system, a simple hash function called the division method is used for page-based address translation. By using this method, a pair of new logical page number "101000" and its corresponding physical page number "0010" is stored into the page table shown below. Which of the following indexes is used to place them in the table? Here, the given logical page number is divided by 7, and its remainder is used as the index of the page table. If the slot specified by the index value is already taken, the table is searched forward from that slot to find the next empty slot.

Page table

Index	Logical page number	Physical page number
000	Empty	Empty
001	001111	1110
010	Empty	Empty
011	000011	0001
100	001011	0011
101	000101	1010
110	Empty	Empty
111	Empty	Empty

a) 000   b) 010   c) 110   d) 111