

Quiz

Wednesday, April 23, 2025 12:21 PM

VM uses 16 BIT
 2^{16}

Page size $2^9 = 512$ bytes

offset = 9 bit

VPN = $16 - 9 = 7$ bit

$2^7 \times 2^9 =$
 \uparrow \uparrow
 VPN 4B
 Table
 Entry

$2^9 = 512$ B
 Total PT
 Size

VPN OFFSET
 00000 10000 10 1110

Physical $2^3 \times 2^9 = 2^{12} = 4$ KB

0000010 = 2

$2 = 110$

Present bit = 1 \rightarrow

PFX OFFSET

110 | 000101110 IN PHYSICAL MEM

PT1 = $2^4 = 4$ bit = 16 entries \times 4B

PT2 = $2^3 = 3$ bit = 8 entries \times 3 = 24 \times 4B

$(2^4 + 2^3 \times 3) 4B = 16 + 8 \times 3 = 16 + 24 = 40 \times 4 = 160B$