EE463
Operating System Lab.
King Abdulaziz University
Faculty of Engineering - ECE

Lab. #8

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Solution

Simulator: pagetrans.py
Command: **python ./pagetrans.py -a 8k -p 512 -r 128k -s 104**
Solution:
Virtual Address Trace

VA 0x00001231 (decimal: 4657) →	**RA 0xC831 [VPN= 9]**
VA 0x00000335 (decimal: 821) →	**RA 0x7535 [VPN= 1]**
VA 0x00001320 (decimal: 4896) →	**RA 0xC920 [VPN= 9]**
VA 0x000019a8 (decimal: 6568) →	**Invalid [VPN= 12]**
VA 0x00001a7f (decimal: 6783) →	**Invalid [VPN= 13]**

Simulator: pagetablesize.py
Command: **python ./pagetablesize.py -v 38 -e 8 -p 2K**
Solution:
Virtual Address (VA) = [Virtual Page Number (VPN) | Offset (D)]

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	27	11	8

Calculate (Linear Page Table Size) and write the results in the simplest readable form (e.g. byte, KB, MB, GB, and TB)
Linear Page Table Size = 1 GB