EE463 Lab. #8 Operating System Lab.

King Abdulaziz University
Faculty of Engineering - ECE

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Name: Ahmed Alsaggaf Id: 2036616

## **Solution**

Simulator: pagetrans.py

Command: python ./pagetrans.py -a 8k -p 1k -r 64k -s 104

**Solution:** 

Virtual Address Trace

VA 0x000014A7 (decimal: 5287) →	Invalid [VPN= 05]	
VA 0x00001B97 (decimal: 7063) →	$RA\ 0x1F97\ [VPN=06]$	
VA 0x0000129B (decimal: 4763) →	Invalid [VPN= 04]	
VA 0x00000C84 (decimal: 3204) →	RA 0xCC84 [VPN= 03]	
VA 0x00000A50 (decimal: 2640) →	Invalid [VPN= 02]	

Simulator: pagetablesize.py

Command: python ./pagetablesize.py -v 32 -e 1 -p 2K

**Solution:** 

Virtual Address (VA) = [Virtual Page Number (VPN) | Offset (D)]

VA (bits)	VPN (bits)	D (bits)	pte (byte)
32	21	11	0031

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 = 256 KiB**