EE463 **Lab. #8** 

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

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Name: ANWAR JAMEEL SHAWLI Id: 1937123

## **Solution**

**Simulator:** pagetrans.py

Command: python ./pagetrans.py -a 16k -p 1k -r 128k -s 103

Virtual Address Trace

VA 0x00002eec (decimal: 12012) →	Invalid [VPN= 11]	
VA 0x00002e45 (decimal: 11845) →	Invalid [VPN= 7]	
VA 0x00001a8f (decimal: 6799) →	RA 0x0001be8f [VPN= 6]	
VA 0x00003250 (decimal: 12880) →	Invalid [VPN= 12]	
VA 0x000024a3 (decimal: 9379) →	Invalid [VPN= 9]	

**Simulator:** pagetablesize.py

Command: python ./pagetablesize.py -v 38 -e 1 -p 8k

**Solution:** 

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

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	25	13	1

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 = 32 MB (Mebibyte)**