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

Lab. #8

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Solution

Simulator: pagetrans.py
Command: **python3 ./pagetrans.py -a 4k -p 2k -r 16k -s 101**
Solution:
Virtual Address Trace

VA 0x00000718 (decimal: 1816) →	**RA** 0x00003718 **[VPN= 0]**
VA 0x0000093b (decimal: 2363) →	**RA** 0x0000e93b **[VPN= 1]**
VA 0x00001628 (decimal: 5672) →	**RA** Not Valid **[VPN= 0]**
VA 0x000006cb (decimal: 1739) →	**RA** 0x000036cb **[VPN= 0]**
VA 0x00001f13 (decimal: 7955) →	**RA** 0x00003713 **[VPN= 3]**

Simulator: pagetablesize.py
Command: **python ./pagetablesize.py -v 38 -e 4 -p 4k**
Solution:
Virtual Address (VA) = [Virtual Page Number (VPN) | Offset (D)]

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	**26**	**12**	**4**

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 = 4 x 2^26 = 268,435,456 = 268.44 MB