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| EE463  Operating System Lab.  King Abdulaziz University  Faculty of Engineering - ECE |  | **Lab. #8**  **\_\_ / 10** |

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**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**