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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 8k -p 512 -r 64k -s 102\_\_\_\_**

**Solution:**

Virtual Address Trace

|  |  |
| --- | --- |
| VA 0x00001573 (decimal: 5491) → | **Invalid [VPN= 10 not valid]** |
| VA 0x000007e2 (decimal: 2018) → | **Invalid [VPN= 3 not valid]** |
| VA 0x000002f1 (decimal: 753) → | **RA 0x1EF1 (decimal 7921) [VPN= 1]** |
| VA 0x00000aa7 (decimal: 2727) → | **Invalid**  **[VPN= 5]** |
| VA 0x00001601 (decimal: 5633) → | **RA 0x7401 (decimal 29697)** **[VPN= 11]** |

**‘**

**Simulator:** pagetablesize.py

**Command: \_\_\_\_ python ./pagetablesize.py -v 32 -p 8k -e 4\_\_\_\_**

**Solution:**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **VA (bits)** | **VPN (bits)** | **D (bits)** | **pte (byte)** |
| **32** | **19** | **13** | **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 = No of entries in Table \* Size of each page Table entry**

**= 2^19 \* 4**

**= 2097152 Bytes**

**= 2048 KB**

**= 2 MB**