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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 0x00000779 (decimal: 1913) →	RA 0x00000F79 [VPN= 0]
VA 0x00000A9D (decimal: 2717) →	RA 0x00003A9D [VPN= 1]
VA 0x0000036E (decimal: 878) →	RA 0x00000B6E [VPN= 0]
VA 0x0000038C (decimal: 908) →	RA 0x00000B8C [VPN= 0]
VA 0x0000049D (decimal: 1181) →	RA 0x00000C9D [VPN= 0]

Simulator: pagetablesize.py

Command: **python3 ./pagetablesize.py -v 20 -e 4 -p 2K**

Solution:

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

VA (bits)	VPN (bits)	D (bits)	pte (byte)
20	9	11	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 = $4 \times 2^9 = 4 \times 512 = 2048$ Bytes = 2 KB