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## Solution

**Simulator:** pagetrans.py

**Command:** `python ./pagetrans.py -a 8k -p 1k -r 64k -s 101`

**Solution:**

Virtual Address Trace

VA 0x0000062f (decimal: 1583) →	RA 0xee2f [VPN= 1]
VA 0x000002d7 (decimal: 727) →	RA 0x32d7 [VPN= 0]
VA 0x000018a2 (decimal: 6306) →	RA 0x34a2 [VPN= 6]
VA 0x00000bba (decimal: 3002) →	Invalid
VA 0x00000f18 (decimal: 3864) →	RA 0x3718 [VPN= 3]

**Simulator:** pagetablesizes.py

**Command:** `python ./pagetablesizes.py -v 32 -e 16 -p 16k`

**Solution:**

ARG bits in virtual address 32

ARG page size 16k

ARG pte size 16

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

VA (bits)	VPN (bits)	D (bits)	pte (byte)
32	18	14	16

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** =  $2^{VPN\ bits} * pte\ size = 2^{18} * 16 = 4,194,403\ Bytes \approx 3.99\ MB$