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## Solution

**Simulator:** pagetrans.py

**Command:** **python ./pagetrans.py -a 16k -p 4k -r 256k -s 100**

**Solution:**

Virtual Address Trace

VA 0x00003333 (decimal: 13107) →	RA 0x0001b333 [VPN= 3]
VA 0x0000221b (decimal: 8731) →	RA 0x0002d21b [VPN= 2]
VA 0x00000521 (decimal: 1313) →	Invalid [VPN= 0]
VA 0x00001d2e (decimal: 7470) →	Invalid [VPN= 1]
VA 0x00000310 (decimal: 784) →	Invalid [VPN= 0]

**Simulator:** pagetablesizes.py

**Command:** **python ./pagetablesizes.py -v 38 -e 4 -p 8k**

**Solution:**

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

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	25	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 =  $4 \times 2^{25} = 134,217,728$  Bytes = 134MB**