

Name: **Mohab Mamdouh Bakraa**

Id: **1937381**

## Solution

**Simulator:** pagetrans.py

**Command:** **python ./pagetrans.py -a 4k -p 2k -r 128k -s 102**

**Solution:**

Virtual Address Trace

VA 0x00000b66 (decimal: 2918) →	RA 0x00005366 [VPN= 1]
VA 0x000009b9 (decimal: 2489) →	RA 0x000051b9 [VPN= 1]
VA 0x00000626 (decimal: 1574) →	Invalid
VA 0x000009e1 (decimal: 2529) →	RA 0x000051e1 [VPN= 1]
VA 0x0000090f (decimal: 2319) →	RA 0x0000510f [VPN= 1]

**Simulator:** pagetablesize.py

**Command:** **python ./pagetablesize.py -v 38 -e 8 -p 1m**

**Solution:**

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

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	18	20	8

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 MB**