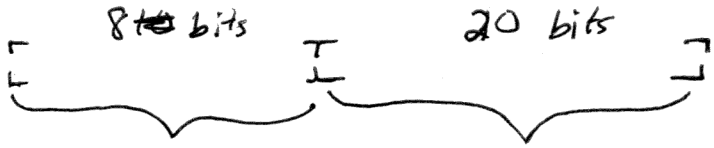
OSTEP HW 18 #3

Addr space 256M 2^{18} 28 bits needed total
Page size 1M 2^{20} 20 bits needed for offset

8 bits | 20 bits

VPN | offset



256 frames in ~~address spa~~ virtual address space.

28 24 20 16 12 8 4
3 0 8 b 2 4 d ← offset

0 0 1 1 0 0 0 0
27 23

48 ← VPN (valid)

PFN: 0x 0000 1 f 6 8 b 2 4 d
Each PF is 1M

4 2 3 5 1 e 6

0 1 0 0 0 0 1 0

VPN: 66 INVALID

2 f e b 6 7 b — offset

0 0 1 0 1 1 1 1

VPN: 47 (valid)

PFN: 0x 0000 0 a 9 e b 6 7 b

b 4 6 9 7 7 d

1 0 1 1 ~~00~~ 0 1 0 0

VPN: 180 INVALID

d b c c e b 4 — offset

1 1 0 1 1 0 1 1

VPN: 219 (valid)

PFN: 0x 0000 1 f 2 c c e b 4