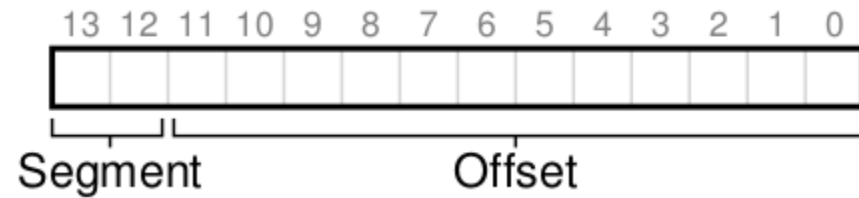


3. Segment Mapping Examples

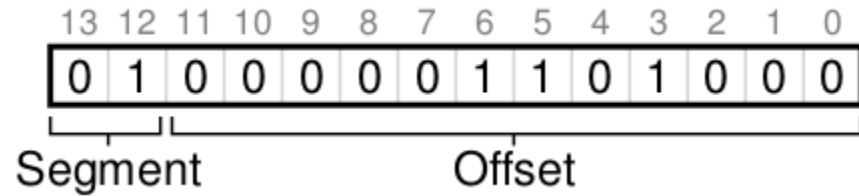
16K virtual address space --> 14-bit virtual address

max segment size 4K --> 12-bit offset

2-bit segment number



4200 = 01 0000 0110 1000



```
1 // get top 2 bits of 14-bit VA
2 Segment = (VirtualAddress & SEG_MASK) >> SEG_SHIFT
3 // now get offset
4 Offset = VirtualAddress & OFFSET_MASK
5 if (Offset >= Bounds[Segment])
6     RaiseException(PROTECTION_FAULT)
7 else
8     PhysAddr = Base[Segment] + Offset
9     Register = AccessMemory(PhysAddr)
```

specify SEG_MASK, SEG_SHIFT, and OFFSET_MASK: _____