



#### MELTDOWN & SPECTRE FOR NORMAL PEOPLE

### MEMORY MODEL





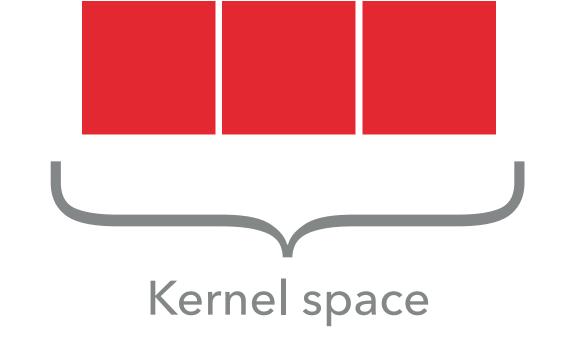
Memory is split into pages (each 4KiB on x86)

The kernel maps its own memory into each process

This "kernel" memory is only accessible by the kernel



# User space









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# b) and c) are completely different error scenarios

# process could try to access the pages via a pointer

C) Kernel memory pages are marked "kernel only" but the

b) Process B has no possibility to even describe the address







#### **PROCESS**



### 0x0000..0





