



#### MELTDOWN & SPECTRE FOR NORMAL PEOPLE

### MEMORY MODEL





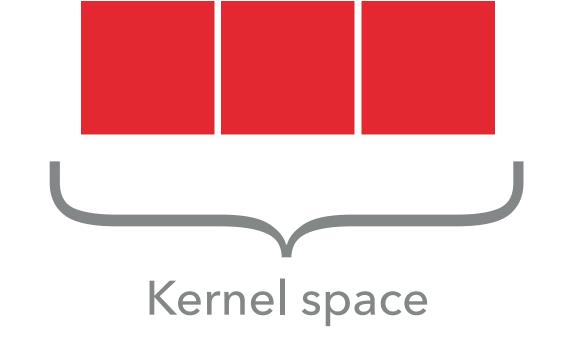
Memory is split into pages (each 4KiB on x86)

The kernel maps its own memory into each process

This "kernel" memory is only accessible by the kernel



# User space







### MEMORY MODEL

# 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





