





### Spy

### MELTDOWN & SPECTRE FOR NORMAL PEOPLE

### **MELTDOWN: THE ATTACK**















# Meltdown needs some preconditions

# The secret is in the cache (value: 3)

# Both Spy and Collector can read grey memory blocks







grey box: memory block tested by Collector













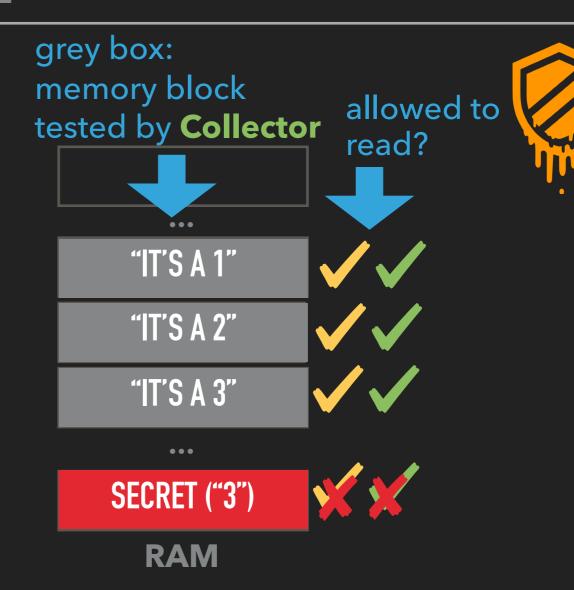


## MELTDOWN: THE ATTACK

110011010
010111010
111100100
000101101
10011010
Spy

110011010
111100100
000101101
100110010
Cache

Collector



- Meltdown needs some preconditions
- The secret is in the cache (value: 3)
- ▶ Both Spy and Collector can read grey memory blocks

## MELTDOWN: THE ATTACK

SECRET ("3")

Cache

"IT'S A 1"
"IT'S A 2"
"IT'S A 3"
"IT'S A 3"

**RAM** 

