

For a CPU the "READ value from memory at 4711" instruction looks like this (μ OPs):

1. Check that program may read from address
2. Store the value at address in register¹



MELTDOWN & SPECTRE FOR ARMV8 ARE PEOPLE

'READ' INSTRUCTION



¹Register: The CPU scratchpad

1

2

If  fails the program is aborted.

This can be handled by the program.

In our burger example:

- 1. Customer orders a burger & coffee**
- 2. Burger is ready, coffee machine breaks**
- 3. Customer does not get his burger**

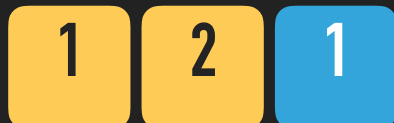


MELTDOWN: READING FORBIDDEN DATA

Meltdown basically works like this:

- READ secret from forbidden address
 - 1 Check that program may read from address
 - 2 Store the read value in register
- Stash away secret
 - 1 *Magic*
- *Retrieve secret (later)*

μOPs:



“READ” INSTRUCTION

For a CPU the “READ value from memory at 4711” instruction looks like this (μOPs):

1. Check that program may read from address **1**
2. Store the value at address in register¹ **2**

If **1** fails the program is aborted.

This can be handled by the program.

In our burger example:

- 1. Customer orders a burger & coffee**
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