

# The Copy On Write Pattern (COW)

given:

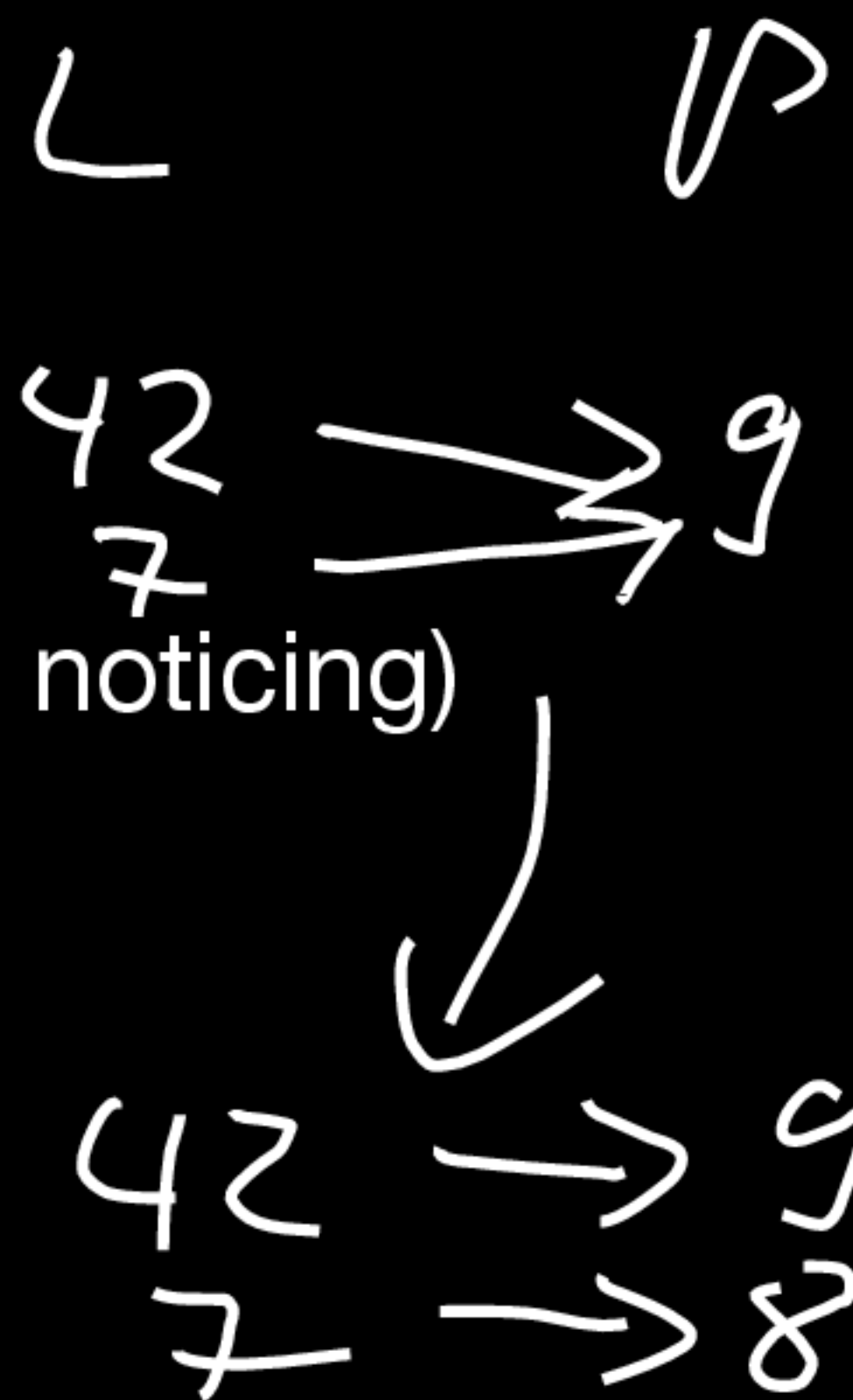
some physical memory partitioned into units, e.g. blocks

allocate/write/update-operations on units

solution:

hide physical addresses, e.g. LBA

make users share the data (without them even noticing)



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copy physically only at allocate/write/update-time

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## advantages:

- saves considerable storage space (compared to twin block)

## drawbacks:

- managing overhead for tables

- fragmentation

## use-cases:

- shadow storage, virtual memory, file systems, versioning