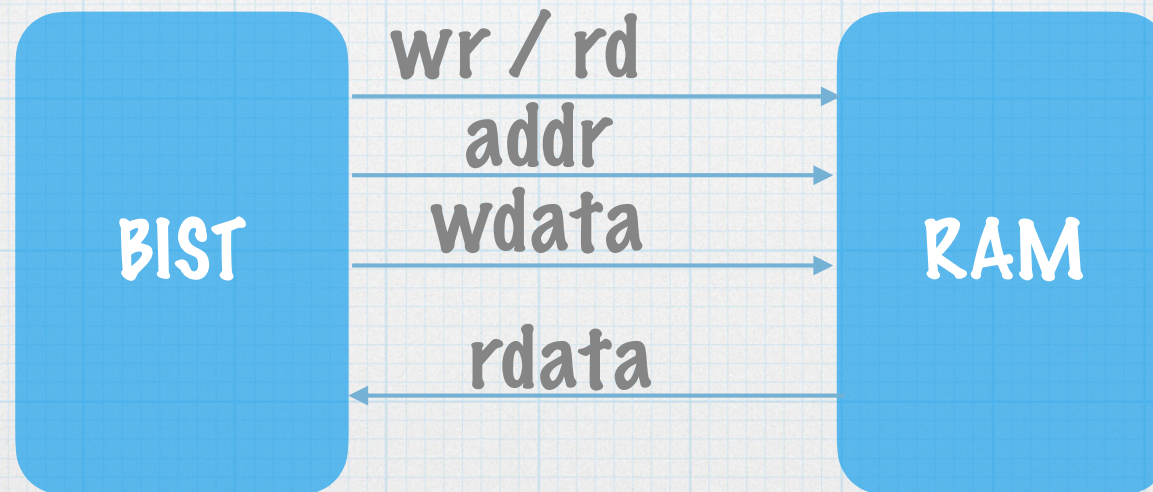# RAM BIST

assignment

What BIST does?

Memory BIST tests RAM array for faults.
Fault is when You write something into some address and later
You read something else from the same address.
Typical BIST exercises many algorithms. Here we focus on one:

Write all locations with "random" data, then read all of them
back and compare. Random comes from LSFR.

```
            wr / rd
            addr
  BIST      wdata      RAM

            rdata
```

Assignment

given RAM 16bit data and 8 bit address.

pins: WR, RD, Addr, Wdata and Rdata

bist pins: Start(in), Finished(out), FinishedOk(out)

* build LFSR that can scan through 8 bit address,

* state machine that writes all locations and then reads all location till fail.