Get a Pointer to the Histogram into R0

```
.ORIG x3000
LEA R0,HIST
```

We need to initialize R0 to HIST.

Is there an LC-3 instruction for that?

We Also Need to Fill the Histogram with 0s

The next step: fill the histogram with 0s.

We need registers.

Let's reuse a few (so far, only **R0** is initialized).

- **R1** a loop counter (27 iterations)
- **R2** current histogram bin to fill
- **R6** the number 0 (to store)

Prepare Our Registers to Initialize the Histogram

```
.ORIG x3000
LEA R0,HIST
AND R6,R6,#0
```

To set R6 to 0, use an AND.

Now, we need to initialize R6 to 0, R1 to #27, and R2 to HIST.

Prepare Our Registers to Initialize the Histogram

```
.ORIG x3000
LEA R0,HIST
AND R6,R6,#0
LD R1,NUM_BINS
```

Let's just store #27 somewhere and use an LD.

```
NUM_BINS .FILL #27
```

Now, we need to initialize R6 to 0, R1 to #27, and R2 to HIST.

What about R1?

(just before .END)

