Now Store R2 to DDR

```
ZEROBIT
LDI R4,DSR
BRzp ZEROBIT
STI R2,DDR
```

Write R2 to M[xFE06].

(and just before .END)

Is there an LC-3 instruction for that?

```
DDR .FILL xFE06
```

Actually, yes, there is: STI.

Shift R0 Left by One Bit (Get Next Bit into Bit 15)

```
ZEROBIT
LDI R4,DSR
BRzp ZEROBIT
STI R2,DDR
ADD R0,R0,R0
```

Shift R0 left by one bit.

Is there an LC-3 instruction for that?

Decrement the Loop Counter (the Bit Index R1)

```
ZEROBIT
LDI R4,DSR
BRzp ZEROBIT
STI R2,DDR
ADD R0,R0,R0
ADD R1,R1,#-1
```

Decrement R1.

Is there an LC-3 instruction for that?

The Last Bit is Bit 0

```
ZEROBIT
LDI R4,DSR
BRzp ZEROBIT
STI R2,DDR
ADD R0,R0,R0
ADD R1,R1,#-1
BRzp BITLOOP
```

Branch back to BITLOOP if we have more bits.

What are the branch conditions?

