1. Write equivalent JAS code to the following Java statement. Assume i and j are local variables.

```
while (i > j) {
        j = j-2
}
```

2. What does the DP do based on the following (partial) microinstruction?

S L L 8	S R A 1	F₀	F₁	E N A	E N B	I N V A	I N C	H	O P C	T O S	C P P	L V	S P	P C	M D R	M A R	W R I T E	R E A D	F E T C H	B bus
																				0001
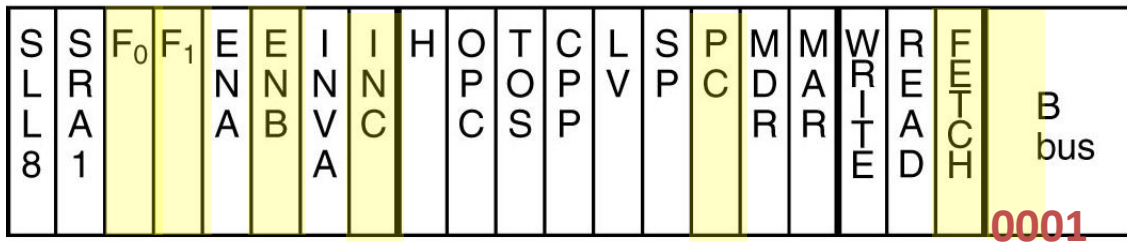
3. Recall that ISA-level IADD pops two words off the stack and pushes their sum. How many Mic-2 data path cycles are needed in order perform IADD? Informally describe each of these cycles. (ignore the IFU in Mic-2)

4. Assume that IJVM has the ISA-level instruction HWIPUSH *hword*, which pushes a 2 byte value onto the stack. Write MAL code to interpret the new instruction.