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X:3

A:7

B:5

C:4

## **Stack Encoding**

Data (24 bit)

PUSH X	01200000
PUSH X	01200000
MULT	04000000
PUSH A	01200001
MULT	04000000
PUSH B	01200002
PUSH X	01200000
MULT	04000000
PUSH C	01200003
ADD	03000000
ADD	03000000
POP	02000000
END	05000000

Op (8 bit)

13 instructions \* 8 bits + 4 data \* 24 bits = 200 bits = **25 bytes** 

200000:3

200001:7

200002:5

200003:4

## **Accumulator Encoding**

Op (8 bit)	Data (24 bit)
•	

LOAD X	01200000	
MULX	04200000	
MULA	04200001	
STO S1	02300000	
LOAD B	01200002	
MULX	04200000	
STO S2	02300001	
LOAD C	01200003	
ADD S1	03300000	
ADD S2	03300001	
END	05000000	
X:3	200000:3	
A:7	200001:7	
B:5	200002:5	
C:4	200003:4	
S1	300000	
S2	300001	

11 instructions \* 8 bits + 6 data \* 24 = 232 bits = **29 bytes**