

8-bit opcode	24-bit address
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Accumulator.load

00000001	24-bit address
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Accumulator.store

00000010	24-bit address
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Accumulator.add

00000011	24-bit address
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Accumulator.multiply

00000100	24-bit address
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Accumulator.run

00000101	24-bit address
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Accumulator.end

00000110	24-bit address
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Stack.push

00000001	24-bit address
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Stack.pop

00000010	24-bit address
----------	----------------

Stack.add

00000011	24-bit address
----------	----------------

Stack.mul

00000100	24-bit address
----------	----------------

Stack.end

00000101	24-bit address
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Accumulator-based quadratic_eval.s (in binary) **(659 Bytes)**

```
.data
000000000000000010000001: 0011 #X: 3
000000000000000010000010: 0111 #A: 7
000000000000000010000011: 0110 #B: 6
000000000000000010000100: 0001 #C: 1

.text
00000001 000000000000000010000001 # LOAD X
00000100 000000000000000010000001 # MUL X
00000100 000000000000000010000010 # MUL A
00000010 000000000000000010000010 # STOR A

00000001 000000000000000010000001 # LOAD X
00000100 000000000000000010000011 # MUL B
00000010 000000000000000010000011 # STOR B

00000001 000000000000000010000100 # LOAD C
00000011 000000000000000010000011 # ADD B
00000011 000000000000000010000010 # ADD A

00000110 # END
```

Stack-based quadratic_eval.s (in binary) **(556 Bytes)**

```
.data
000000000000000010000001: 0011 #X: 3
000000000000000010000010: 0111 #A: 7
000000000000000010000011: 0110 #B: 6
000000000000000010000100: 0001 #C: 1

.text
00000001 000000000000000010000001 # PUSH X
00000001 000000000000000010000001 # PUSH X
00000001 000000000000000010000010 # PUSH A
00000100 # MUL
00000100 # MUL

00000001 000000000000000010000001 # PUSH X
00000001 000000000000000010000011 # PUSH B
00000100 # MUL

00000001 000000000000000010000100 # PUSH C

00000011 # ADD
00000011 # ADD

00000101 # END
```

MIPS quadratic_eval.s (in ASCII) **(911 Bytes)**

Accumulator-based quadratic_eval.s (in hex)

.data

0x81: 0x3 #X: 3

0x82: 0x7 #A: 7

0x83: 0x6 #B: 6

0x84: 0x1 #C: 1

.text

0x1 0x81 # LOAD X

0x4 0x81 # MUL X

0x4 0x82 # MUL A

0x2 0x82 # STOR A

0x1 0x81 # LOAD X

0x4 0x83 # MUL B

0x2 0x83 # STOR B

0x1 0x84 # LOAD C

0x3 0x83 # ADD B

0x3 0x82 # ADD A

0x6 # END

Stack-based quadratic_eval.s (in hex)

.data

0x81: 0x3 #X: 3

0x82: 0x7 #A: 7

0x83: 0x6 #B: 6

0x84: 0x1 #C: 1

.text

0x1 0x81 # PUSH X

0x1 0x81 # PUSH X

0x1 0x82 # PUSH A

0x4 # MUL

0x4 # MUL

0x1 0x81 # PUSH X

0x1 0x83 # PUSH B

0x4 # MUL

0x1 0x84 # PUSH C

0x3 # ADD

0x3 # ADD

0x5 # END