

Meaning	Machine/Binary form			y86 Translation
	Bits 0-2	Bits 3-5	Bits 6-8	
Load Matrix 1a to first register	01	000	010	mrmovl 4(%esp), %eax
Load Matrix 2a to second register	01	001	011	mrmovl 20(%esp), %ecx
Add first register and second register and store result in third register	11	010	101	addl %eax, %ecx
Store content of third register to memory	10	101	100	rmmovl %ecx, 36(%esp)
Load Matrix 1b to first register	01	000	010	mrmovl 8(%esp), %eax
Load Matrix 2b to second register	01	001	011	mrmovl 24(%esp), %ecx
Add first register and second register and store result in third register	11	010	101	addl %eax, %ecx
Store content of third register to memory	10	101	100	rmmovl %ecx, 40(%esp)
Load Matrix 1c to first register	01	000	010	mrmovl 8(%esp), %eax
Load Matrix 2c to second register	01	001	011	mrmovl 28(%esp), %ecx
Add first register and second register and store result in third register	11	010	101	addl %eax, %ecx
Store content of third register to memory	10	101	100	rmmovl %ecx, 44(%esp)
Load Matrix 1d to first register	01	000	010	mrmovl 12(%esp), %eax
Load Matrix 2d to second register	01	001	011	mrmovl 32(%esp), %ecx
Add first register and second register and store result in third register	11	10	101	addl %eax, %ecx
Store content of third register to memory	10	101	100	rmmovl %ecx, 48(%esp)
Read Value from RAM	00	111	000	
Read Value from RAM	00	111	000	
Read Value from RAM	00	111	000	
Read Value from RAM	00	111	000	
	These bits define the operation			
	Operation codes:			
	00 - Read		Register that has the memory address of the value in memory	
	01 - Load value in memory	Register that has the memory address of the value in memory	Register where the value from memory is stored	
	10 - Store value in memory	Register that contains value	Register that has the memory address to store the value	
	11 - Add	Source register	Destination register	