

(12) Direct data cache of 4 bytes by 2 lines is initially empty. Memory starts at address 0 to the left. The memory is initialized as follows :

00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13	14																						
	T		h		i		r		d		-		t		e		s		t		-		C		S		C		I		-		4		6		3		-		-	

Assume memory cells are 8 bits and addresses in decimal. Program below performs the specified memory access.

Show cache after each memory read. Indicate hit or miss on the appropriate line and CIRCLE specific byte in cache being read. Both pages show a single series of reads.

A = accumulator m(i) is memory being read where i is specific address.

A = m(00)	Tag	0	1	2	3	H/M	
							line 1
							line 0

A = m(0A)	Tag	0	1	2	3	H/M	
							line 1
							line 0

A = m(01)	Tag	0	1	2	3	H/M	
							line 1
							line 0

A = m(0B)	Tag	0	1	2	3	H/M	
							line 0
							line 1

A = m(02)	Tag	0	1	2	3	H/M	
							line 1
							line 0

A = m(0C)	Tag	0	1	2	3	H/M	
							line 1
							line 0

