

## Input – Output RESULT

Access No.	Memory Address	Block Number(Address / 4)	Cache Line(Block % 8)	Tag(Block / 8)	Offset(Address % 4)	Hit / Miss
1	1	0	0	0	1	MISS
2	2	0	0	0	2	HIT
3	8	2	2	0	0	MISS
4	1	0	0	0	1	HIT
5	33	8	0	1	1	MISS
<b>Parameter</b>	<b>Value</b>					
Total Hits	2					
Total Misses	3					
Hit Ratio	0.40					

```

--- DIRECT MAPPED CACHE SIMULATION ---
1. Enter memory address
2. Exit
Enter choice: 1
Enter a 16-bit memory address (0 to 65535): 23

Address Details:
Address      : 23
Block Number : 5
Cache Line   : 5
Tag          : 0
Offset       : 3
CACHE HIT at line 5

Current Cache State:
Line 0 -> EMPTY
Line 1 -> EMPTY
Line 2 -> EMPTY
Line 3 -> EMPTY
Line 4 -> EMPTY
Line 5 -> Block 5 (Tag 0)
Line 6 -> EMPTY
Line 7 -> EMPTY

Total Hits   : 1
Total Misses : 1
Hit Ratio    : 0.50

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--- DIRECT MAPPED CACHE SIMULATION ---
1. Enter memory address
2. Exit
Enter choice: 2

Simulation Ended.

Process returned 0 (0x0)   execution time : 179.702 s
Press any key to continue.

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--- DIRECT MAPPED CACHE SIMULATION ---
1. Enter memory address
2. Exit
Enter choice: 1
Enter a 16-bit memory address (0 to 65535): 23

Address Details:
Address      : 23
Block Number : 5
Cache Line   : 5
Tag          : 0
Offset       : 3
CACHE MISS! Loading block 5 into line 5

Current Cache State:
Line 0 -> EMPTY
Line 1 -> EMPTY
Line 2 -> EMPTY
Line 3 -> EMPTY
Line 4 -> EMPTY
Line 5 -> Block 5 (Tag 0)
Line 6 -> EMPTY
Line 7 -> EMPTY

Total Hits   : 0
Total Misses : 1
Hit Ratio    : 0.00

```