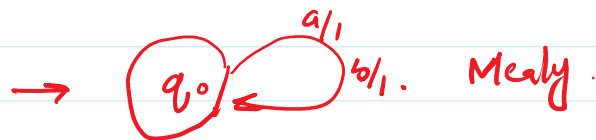
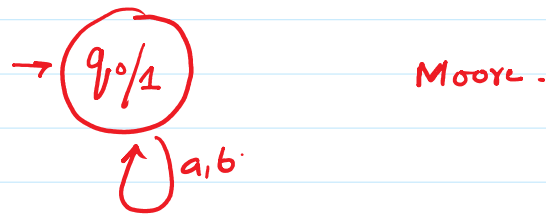
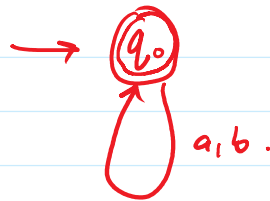


lecture 16 :-



Moore = Mealy.

Definition: Two Machines are said to be equivalent machine if for given inputs they always produce the same output.

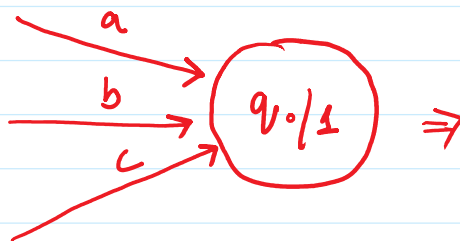
for \forall Moore machine \exists a corresponding Mealy machine.

Note.

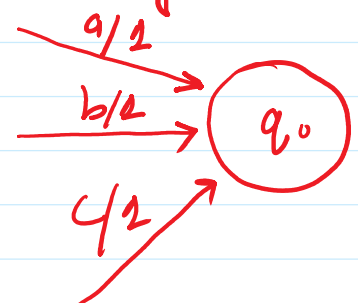
1-

Conversion from Moore to Mealy

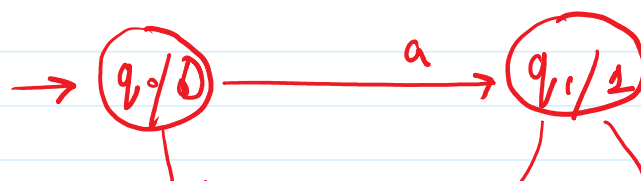
- Regex
- DFA
- TG
- NFA
- TT
- Moore
- Mealy



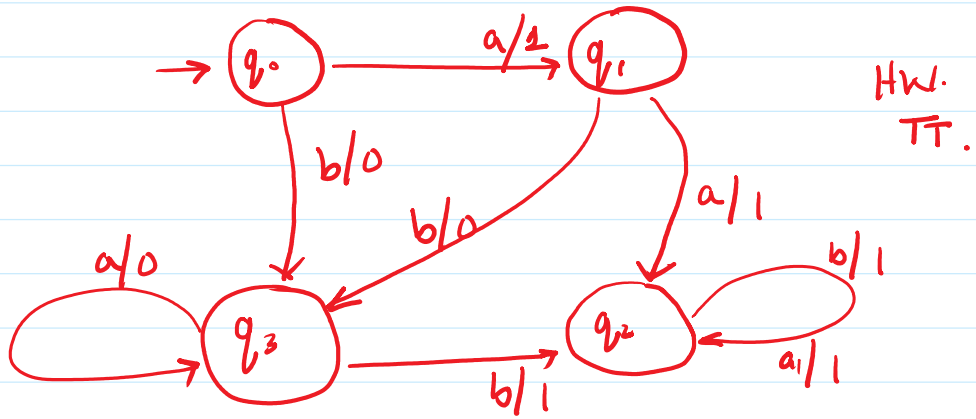
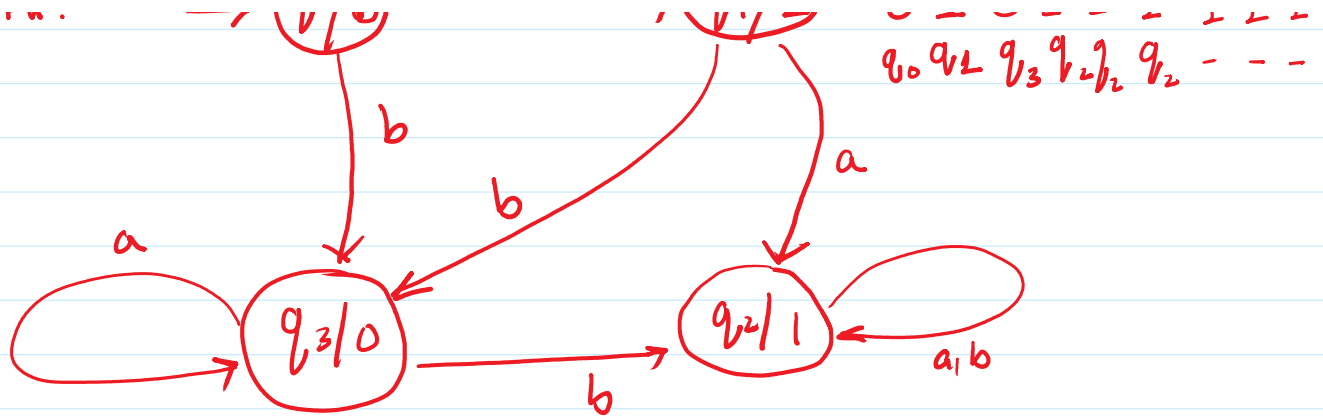
\Rightarrow



Ex:-

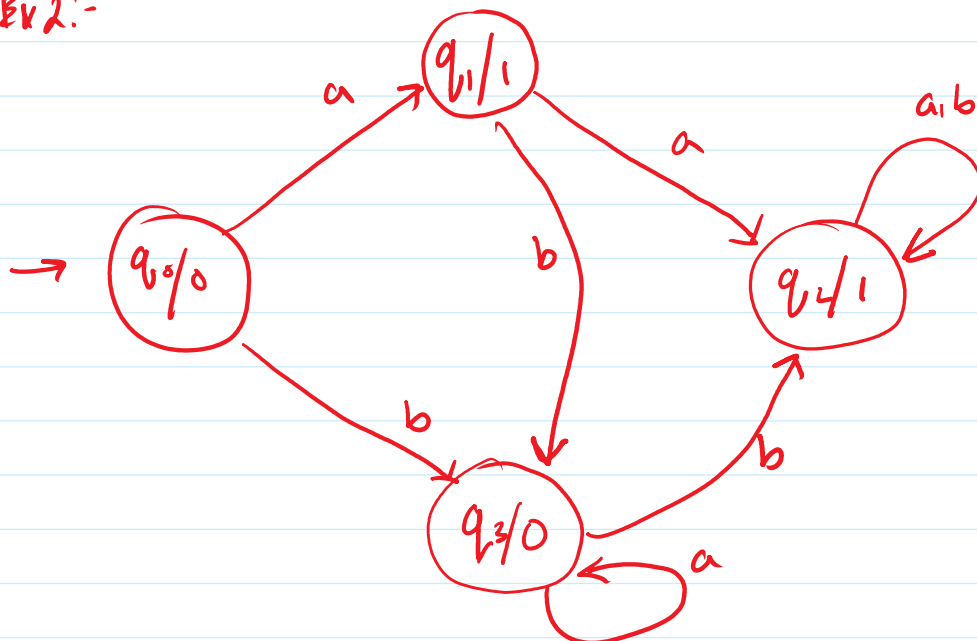


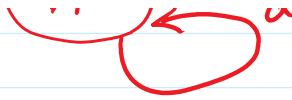
	a	b	b	a	b	b	b	a
	0	1	0	1	1	1	1	1
	q ₀	q ₁	q ₃	q ₄	q ₂	q ₂	-	-



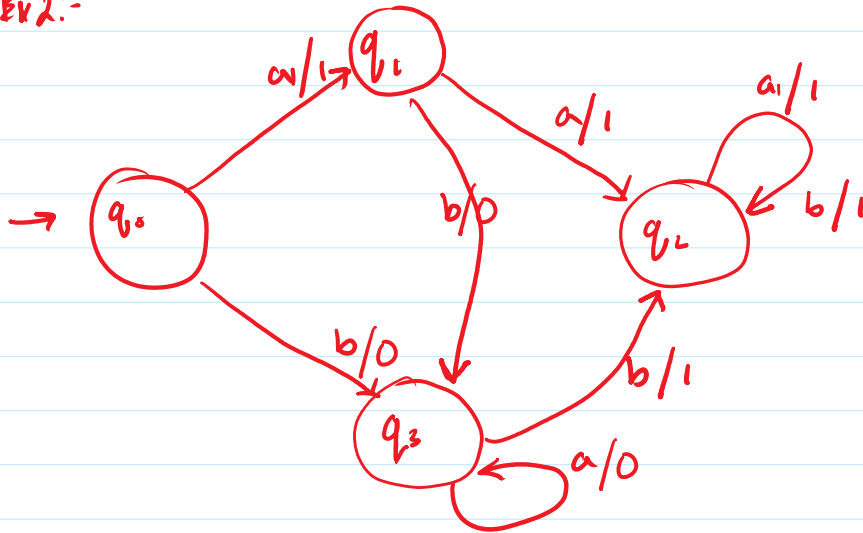
X	a	b	b	a	b	b	a	
0	1	0	1	1	1	1	1	←
q_0	q_1	q_3	q_2	q_2	-	-	-	
X	1	0	1	1	1	1	1	←

Ex 2:-

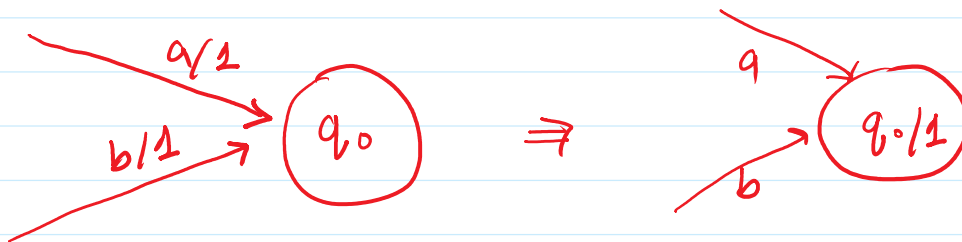




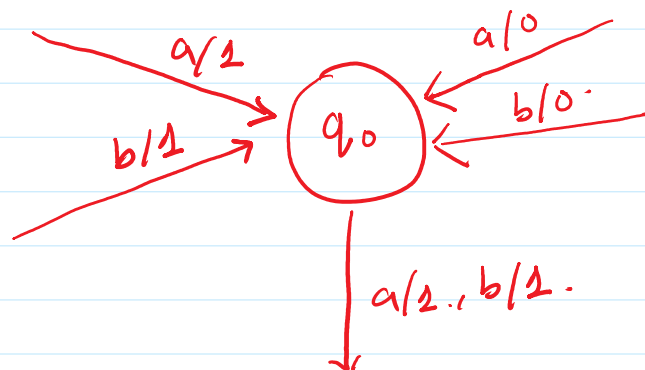
Ex 2:-

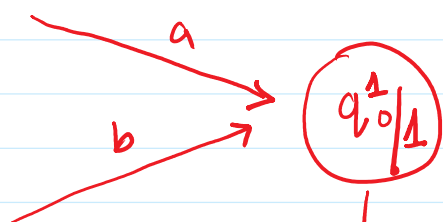


Conversion from Mealy to Moore.

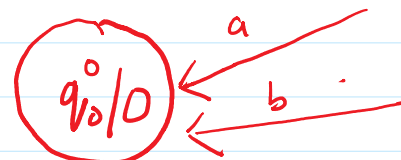


CASE 1:- Same output edges.



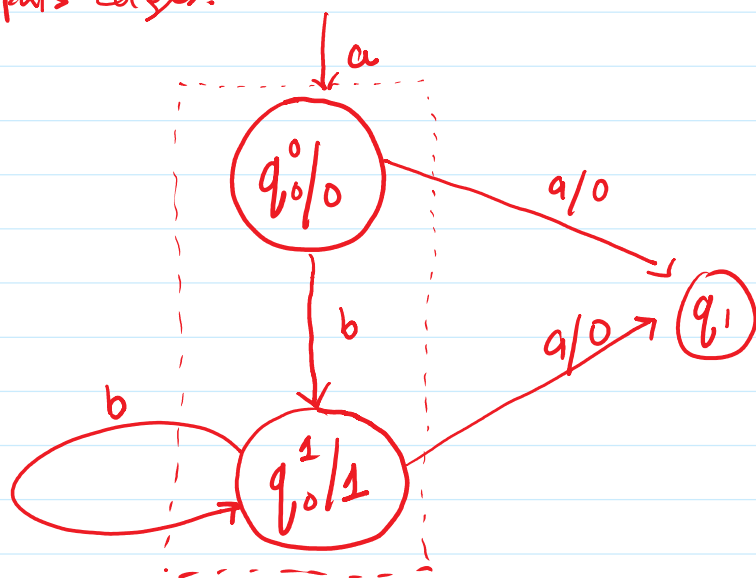
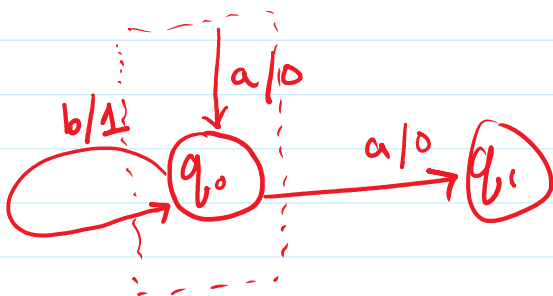


$a/2, b/1$

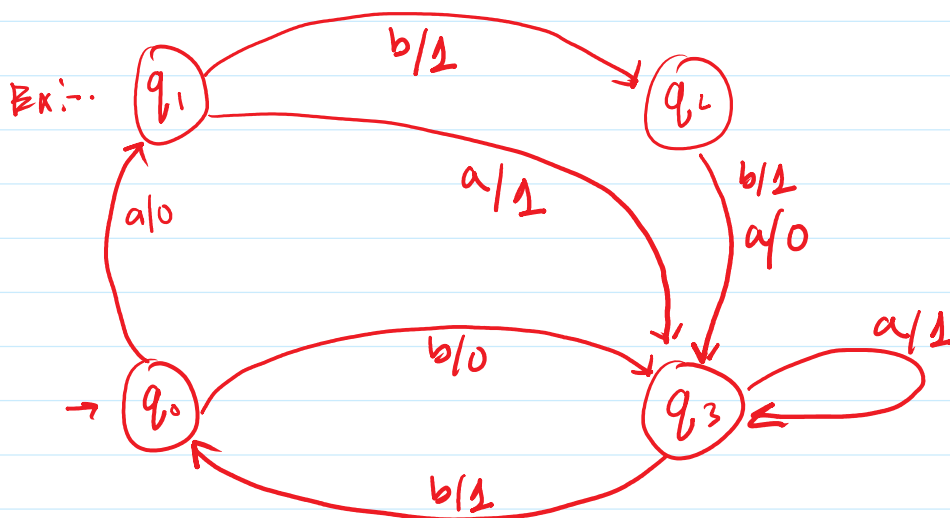


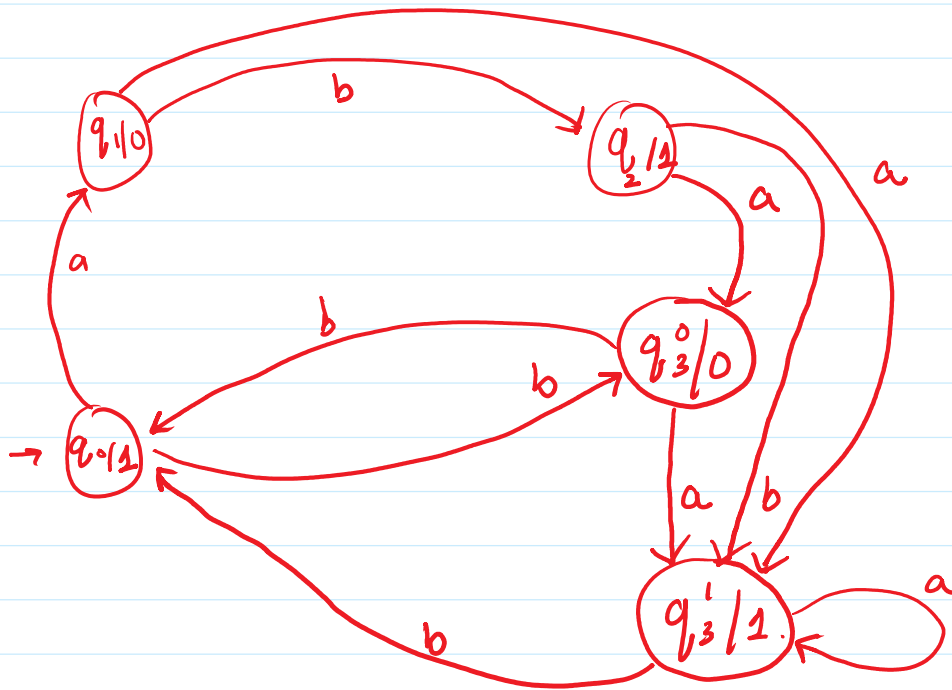
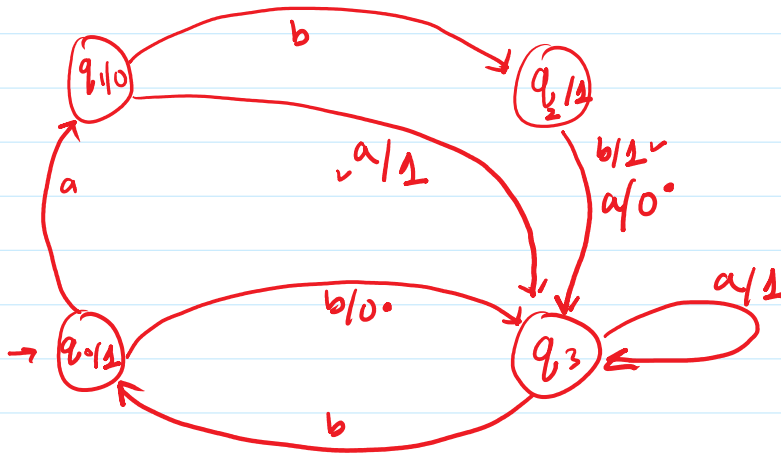
$a/2, b/1$

CASE 2:- Diff outputs edges.



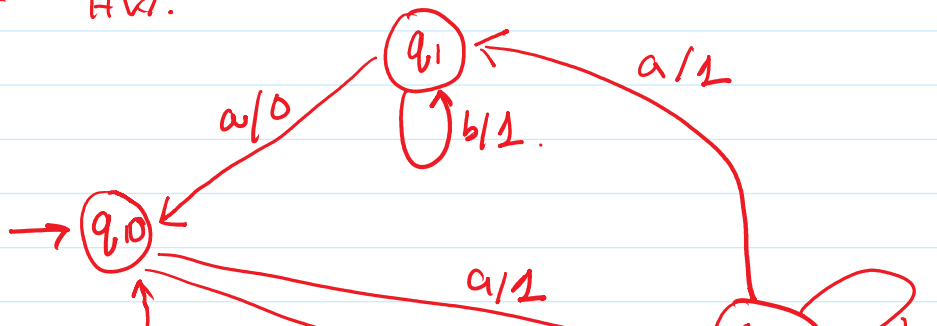
CASE 3:- Diff outputs with a loop.





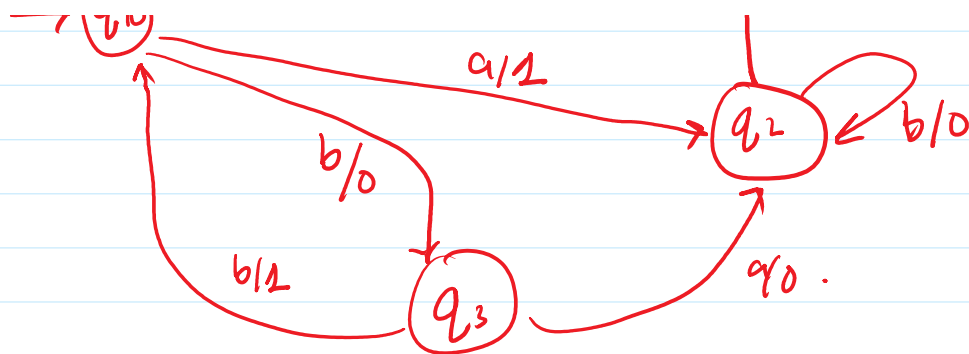
Moore Machine.

Ex: HW.



HW.

Find Moore.

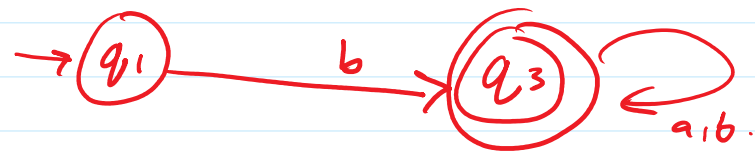
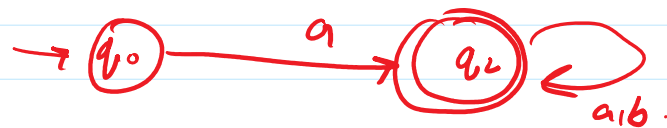


Find Moore.

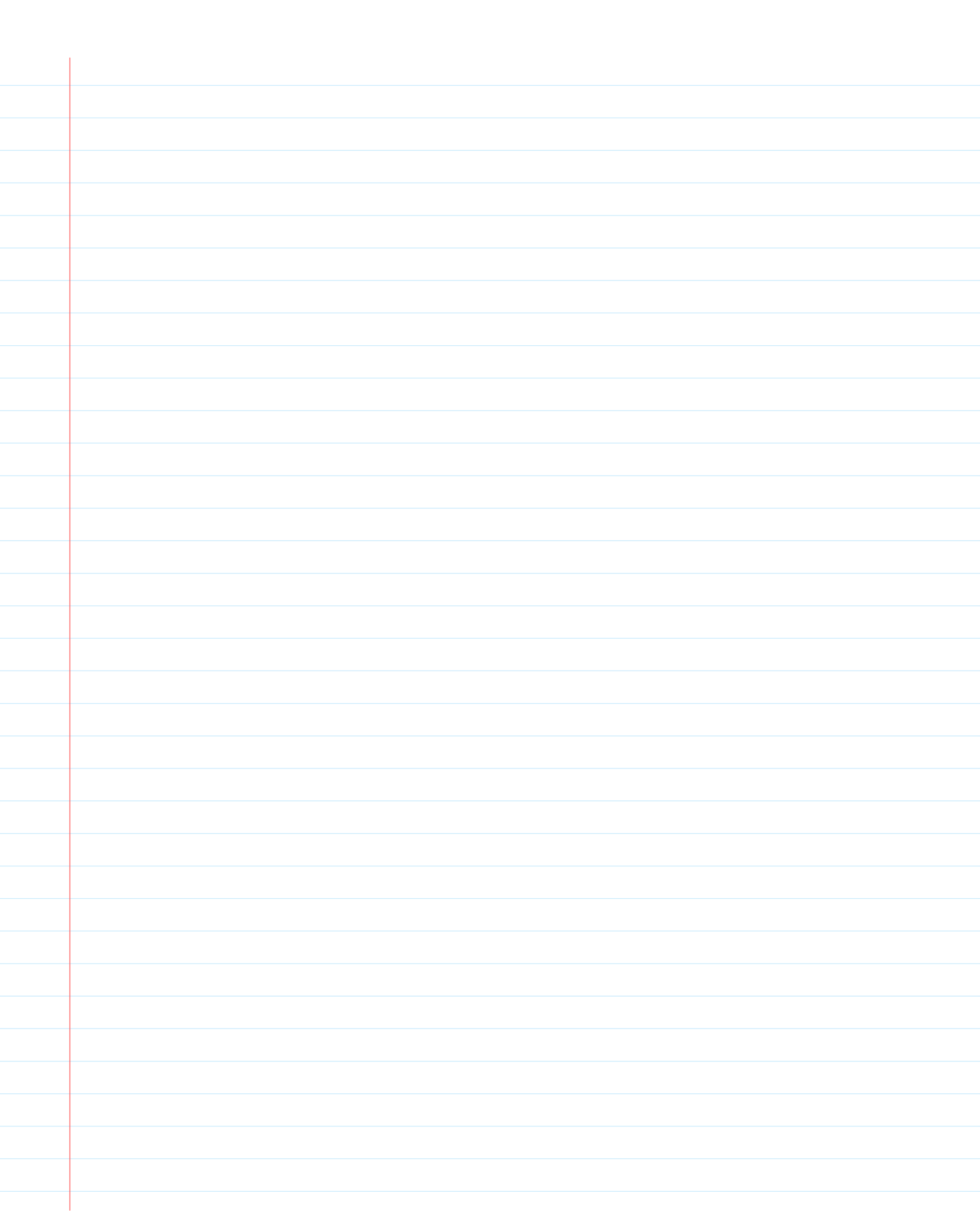
Quiz # 5

14 OCT - 2022.

Convert TG to.



Find
 1) Moore
 2) Mealy.



A handwritten red mark, possibly a signature or initials, consisting of several overlapping loops and strokes.