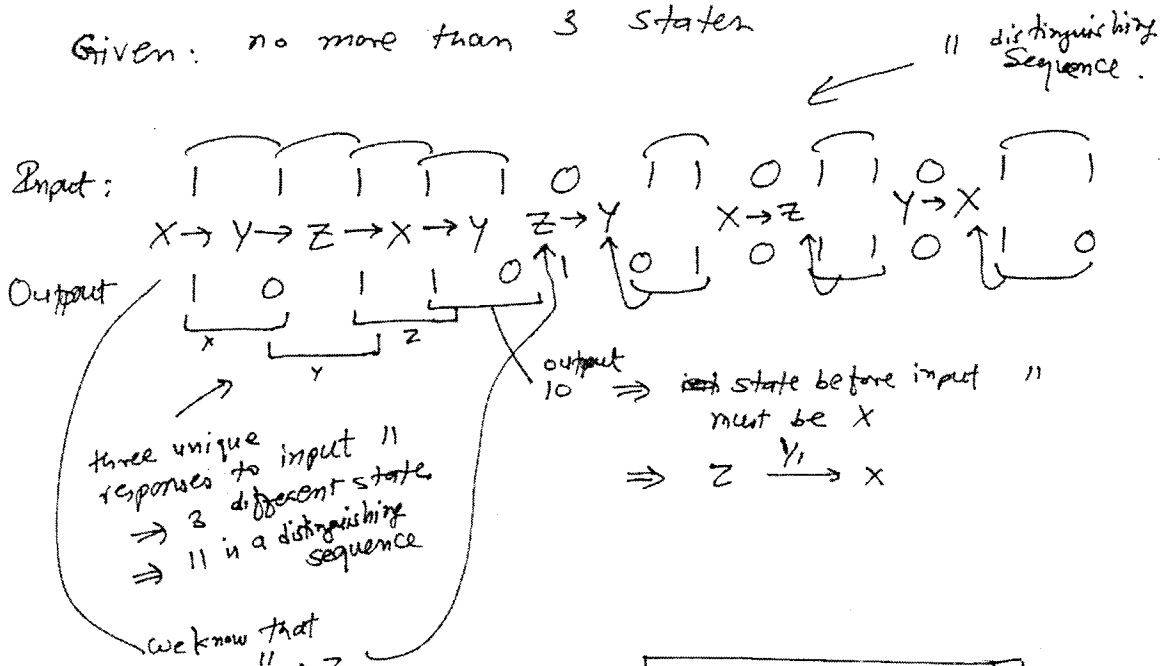
Constructing a state table from checking sequences.

Input: 1111, 1011, 0110, 11

Output: 1011, 0101, 0110, 10

Given: no more than 3 states



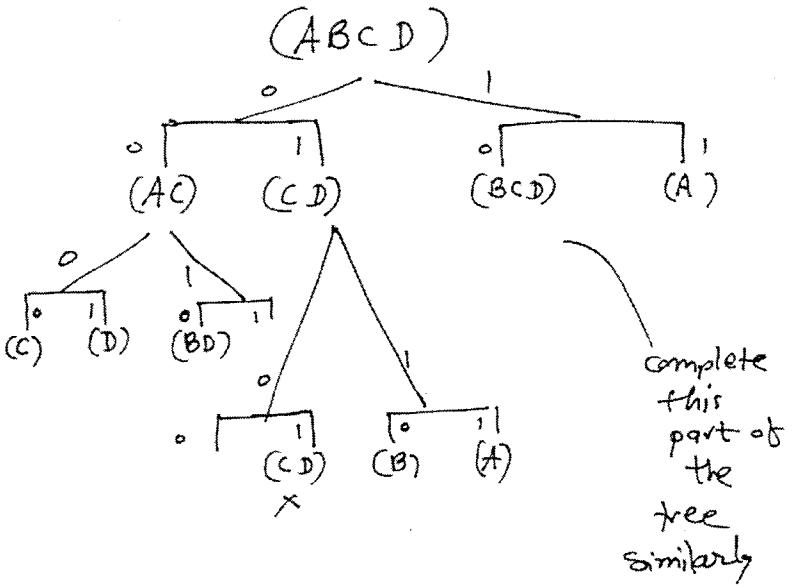
Goal: given the maximum number of states, and output sequence corresponding to an input sequence, determine transition table.

	0	1
X	Z, 0	Y, 1
Y	X, 0	Z, 0
Z	Y, 1	X, 1

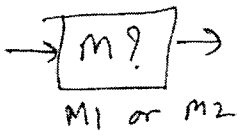
Adaptive Homing Experiment:

Inputs may depend on observed outputs.
Goal is to uniquely identify final state.

	0	1
A	C, 0	D, 0
B	A, 0	C, 0
C	D, 1	B, 0
D	C, 1	A, 1



Machine Identification : Distinguishing two machines

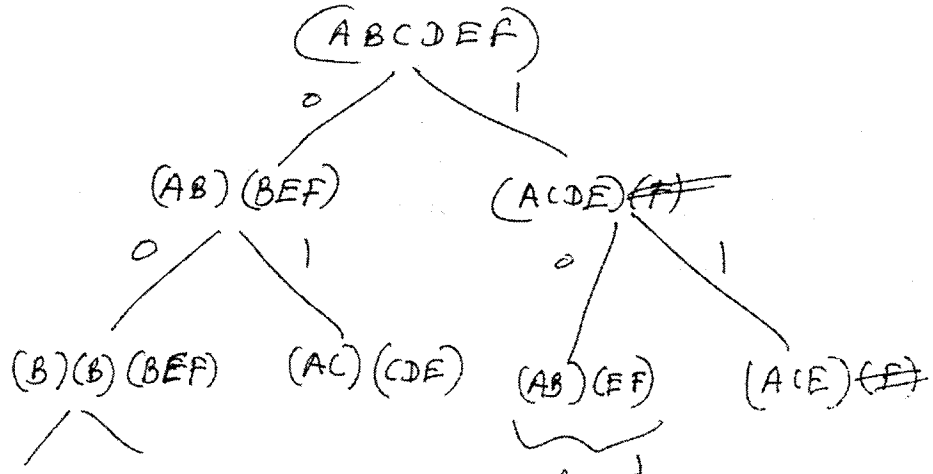


M1

	0	1
A	B 1	A 0
B	B 0	C 0
C	A 1	C 0

M2

	0	1
D	E 0	F 1
E	F 0	E 0
F	E 0	D 0



already distinguished, since state of M1 and M2 are distinguishable from each other