

Sample Solution for Summer 2010

Question 4

(a)

(See associated image in Drive – note the layout is the same as Summer 2013, because the state transitions are the same, but the outputs are different)

(b)

$z \setminus x$	0	1
0	0	1
1	2	3
2	0	1
3	2	3

(c)

The only one I can think of is (and shifts of it):

1100110011001100...

(let me know if you see others)

(d)

These changes do not affect the output, as this is a Moore machine — the output is a function only of the state. So Y can only change when the state changes. Only

the value of X at each clock tick affects the value of Y .