## Karnaugh's maps for Task 3

For the Moore's state machine implementation:

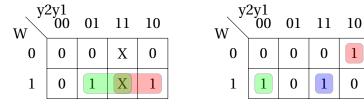


Figure 1: Maps for  $Y_2$  (left) and  $Y_1$  (right) functions.

Where  $Y_2 = W \cdot y_1 + W \cdot y_2$ , and  $Y_1 = W \cdot \overline{y_2} \cdot \overline{y_1}$ . From the transitions table, it is simple to see that  $Z = y_1$ .

And for the Mealy's state machine implementation:

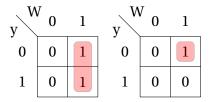


Figure 2: Maps for Y (left) and Z (right)

Where from the left map Y = W, and from the right table  $Z = \overline{y} \cdot W$ .