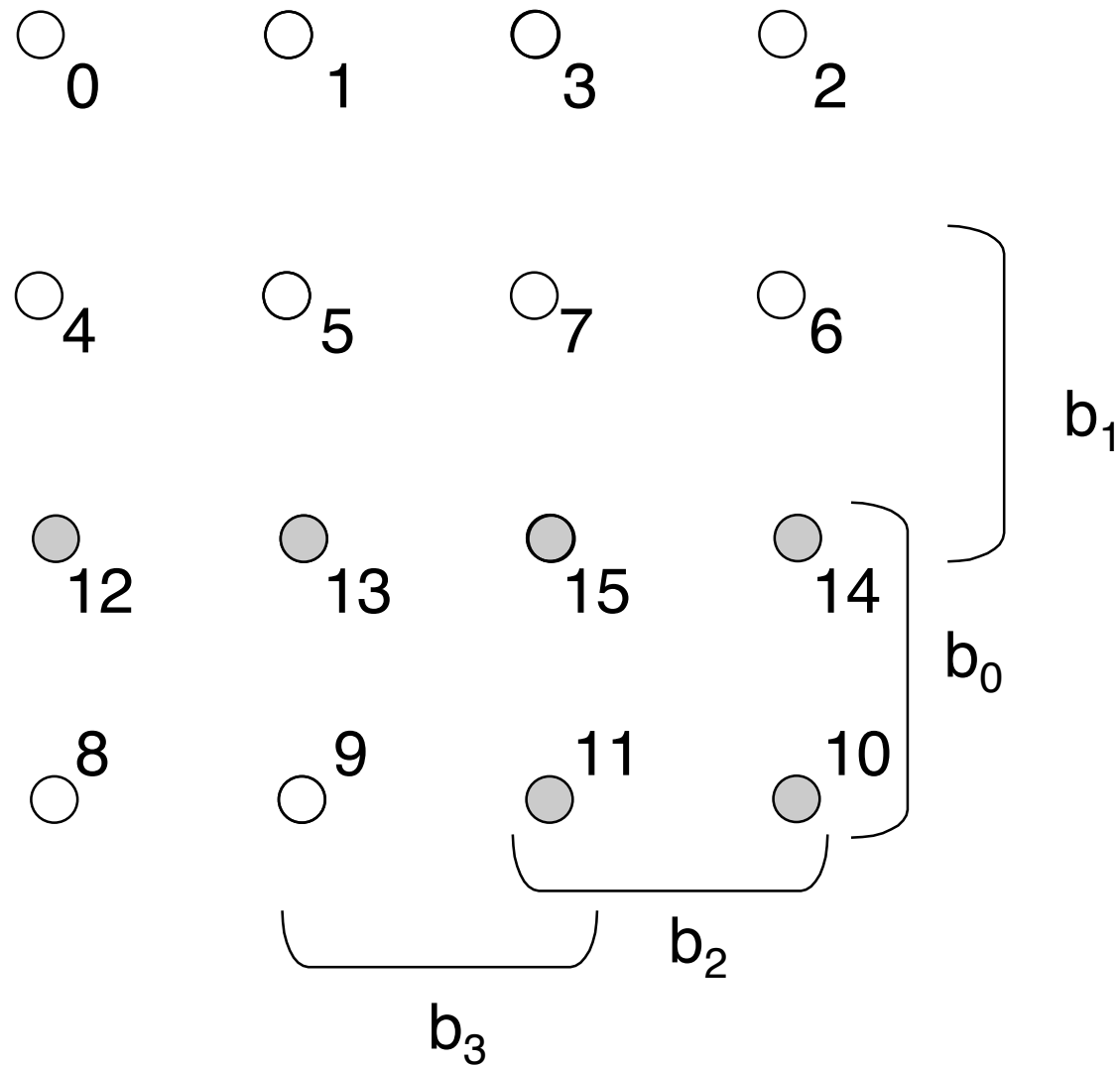
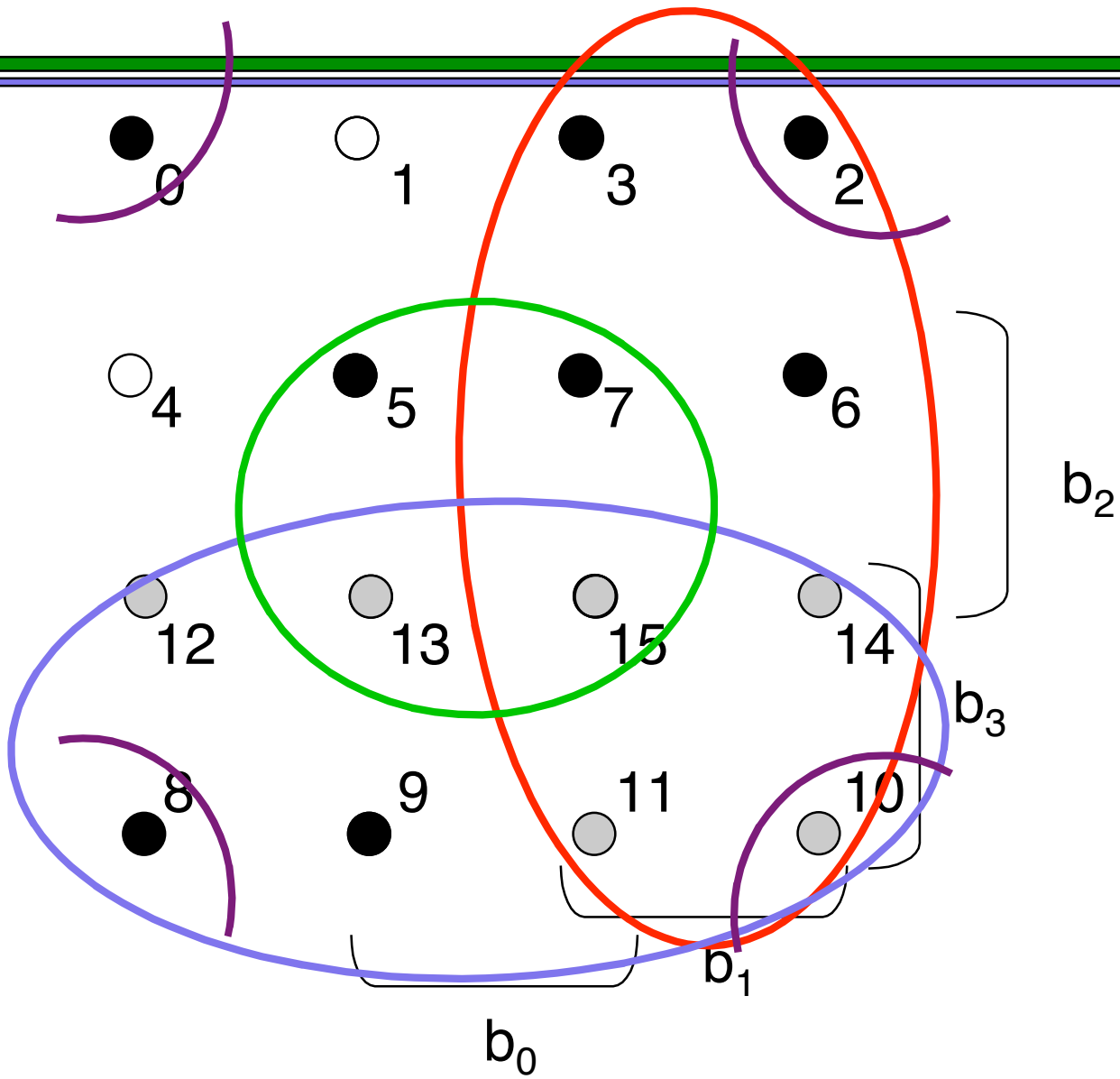

Karnaugh Maps for BCD to 7-segment encoder

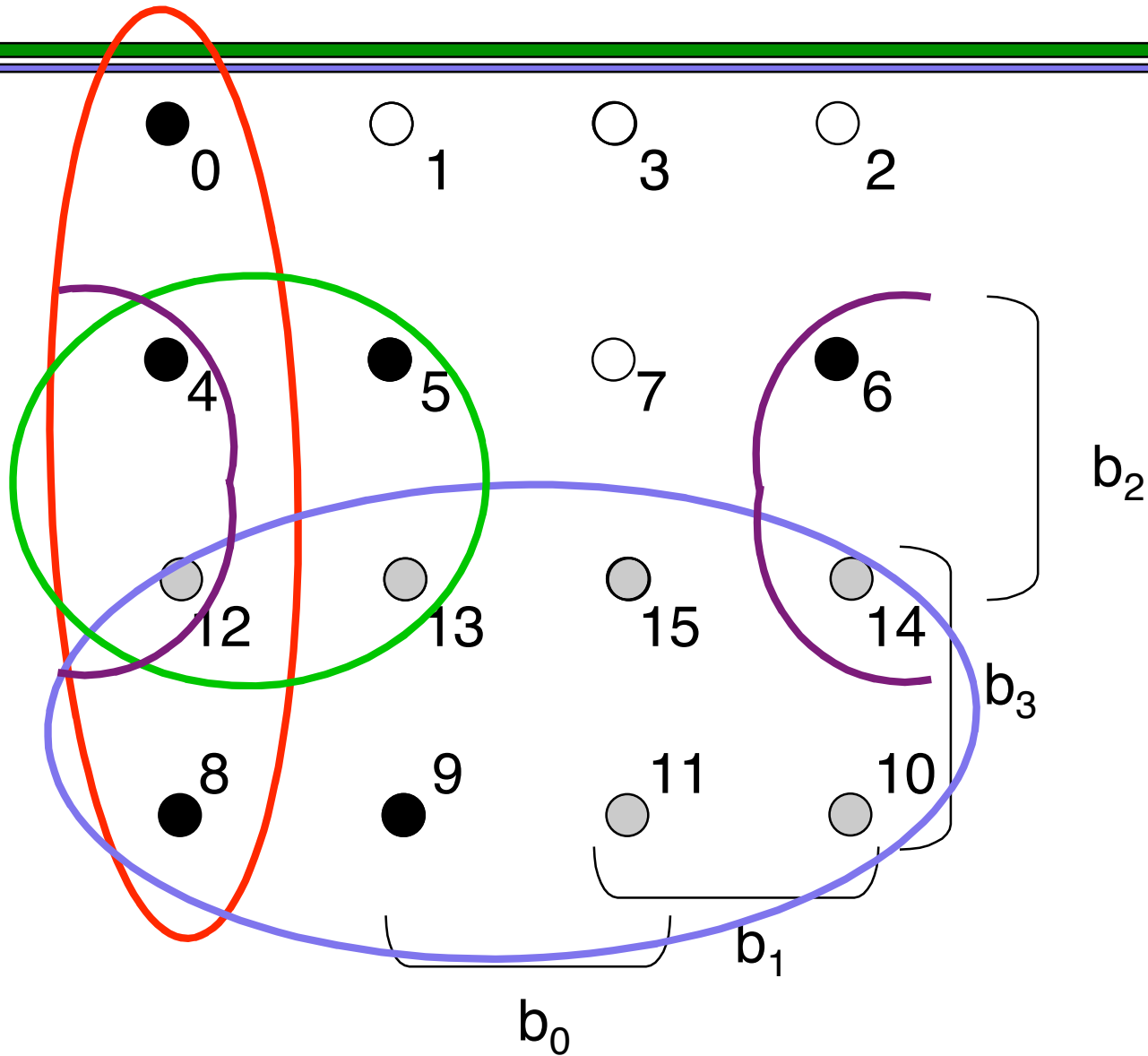
BCD to 7 segment don't cares



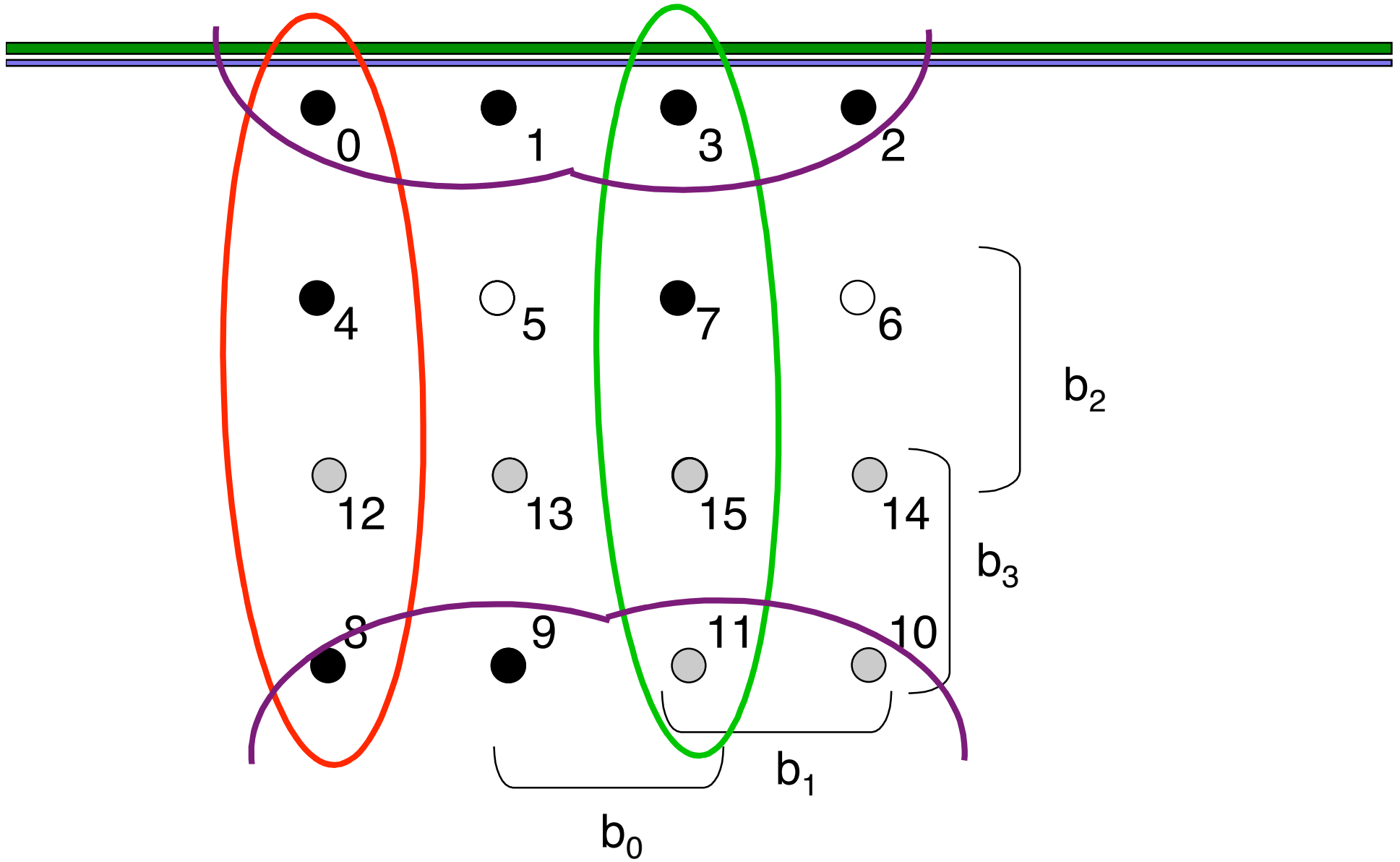
$$s_0 \text{ function} = b_3 + b_1 + b_2 b_0 + b_2' b_0'$$



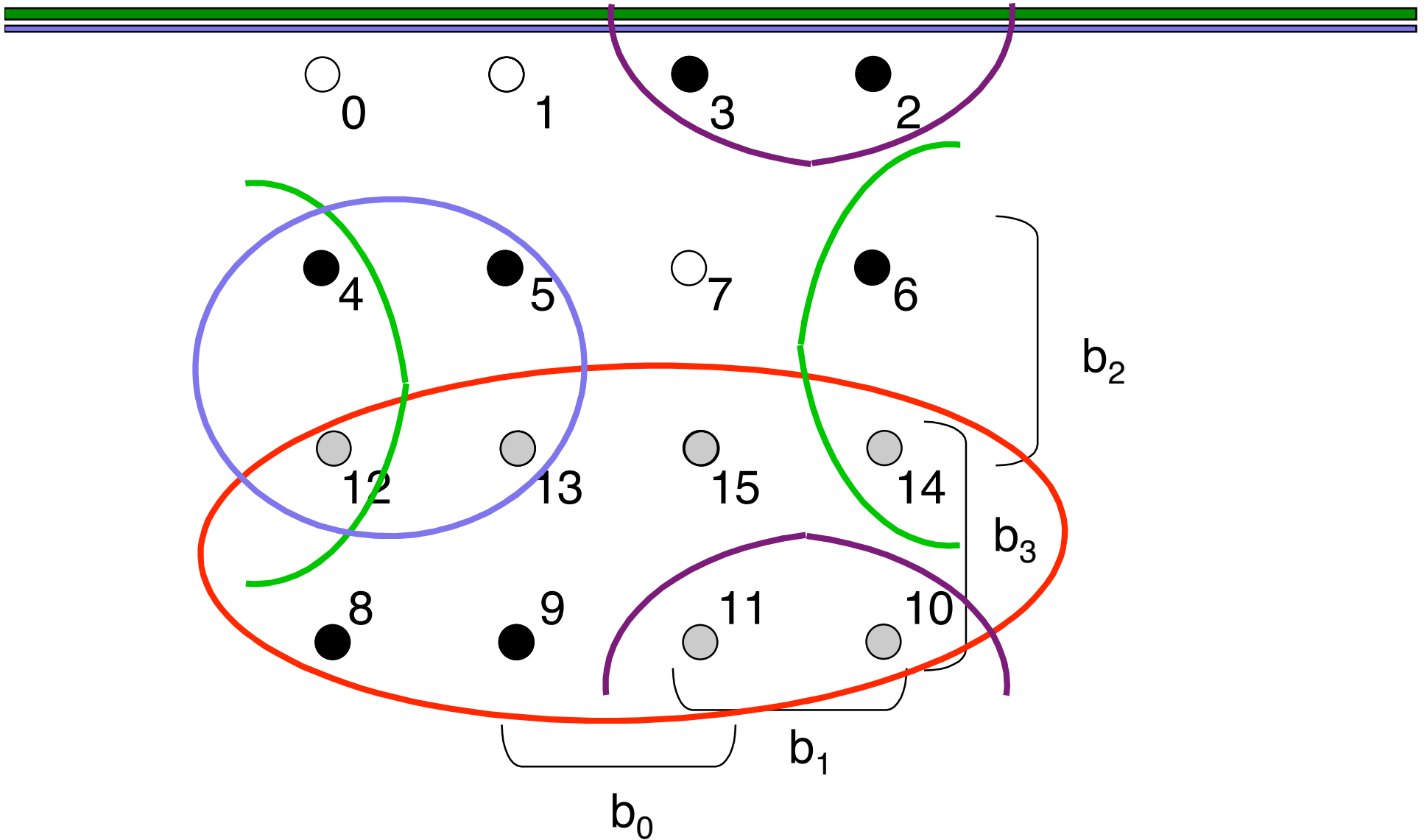
$$s_1 \text{ function} = b_3 + b_2b_1' + b_2b_0' + b_1'b_0'$$



$$s_2 \text{ function} = b_2' + b_1 b_0 + b_1' b_0'$$

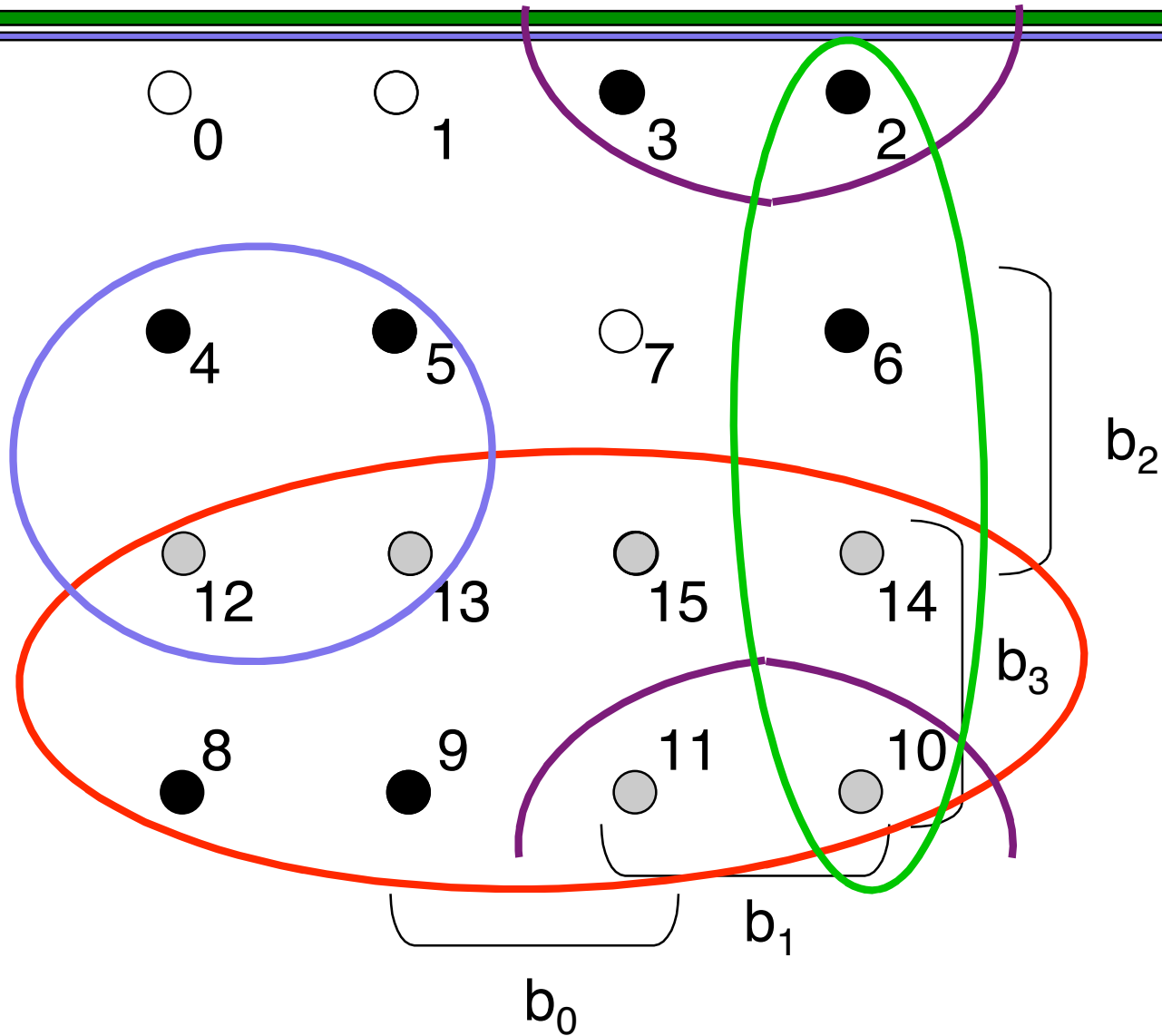


$$s_3 \text{ function} = b_3 + b_2b_1' + b_2b_0' + b_2' b_1$$

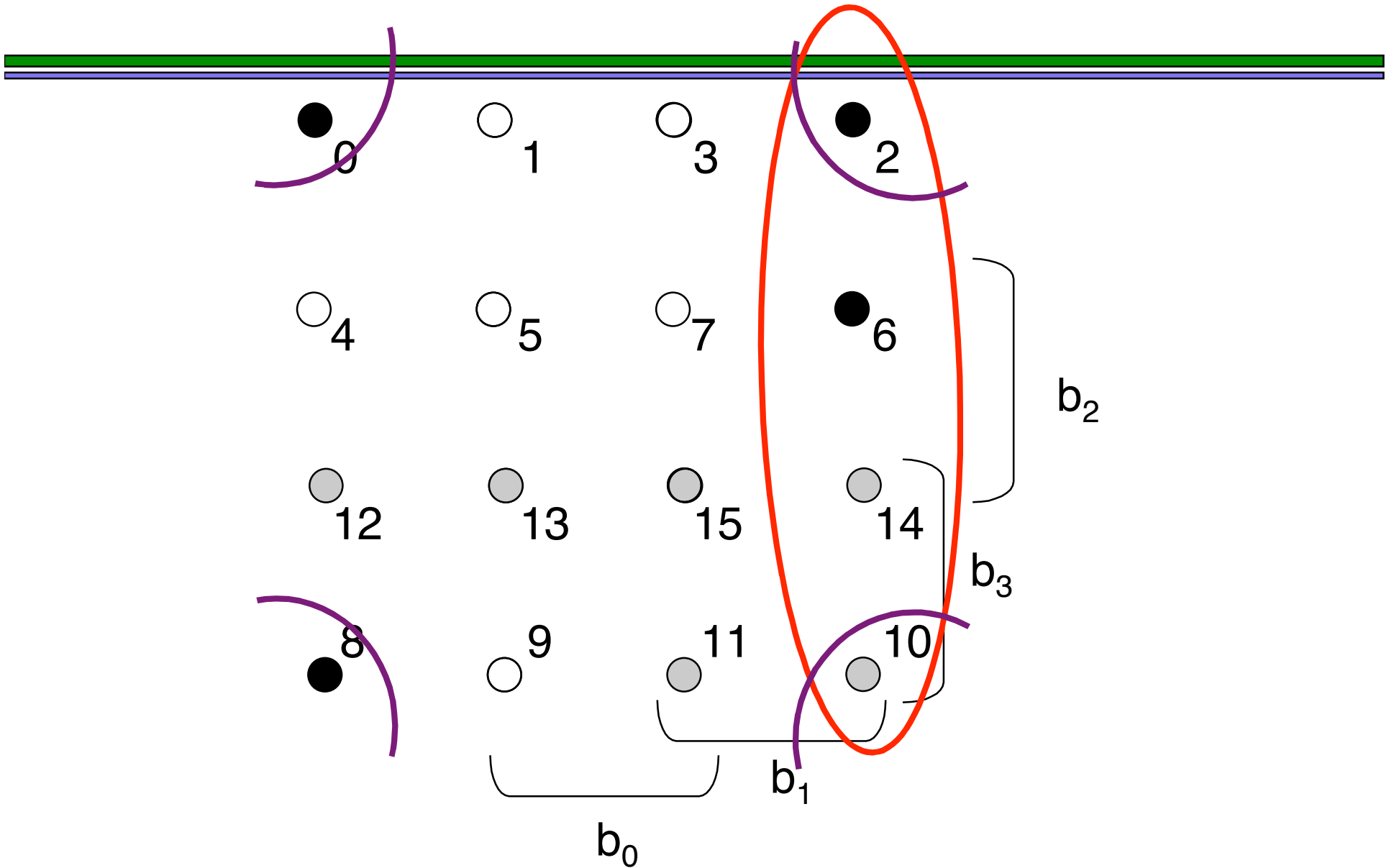


alternate

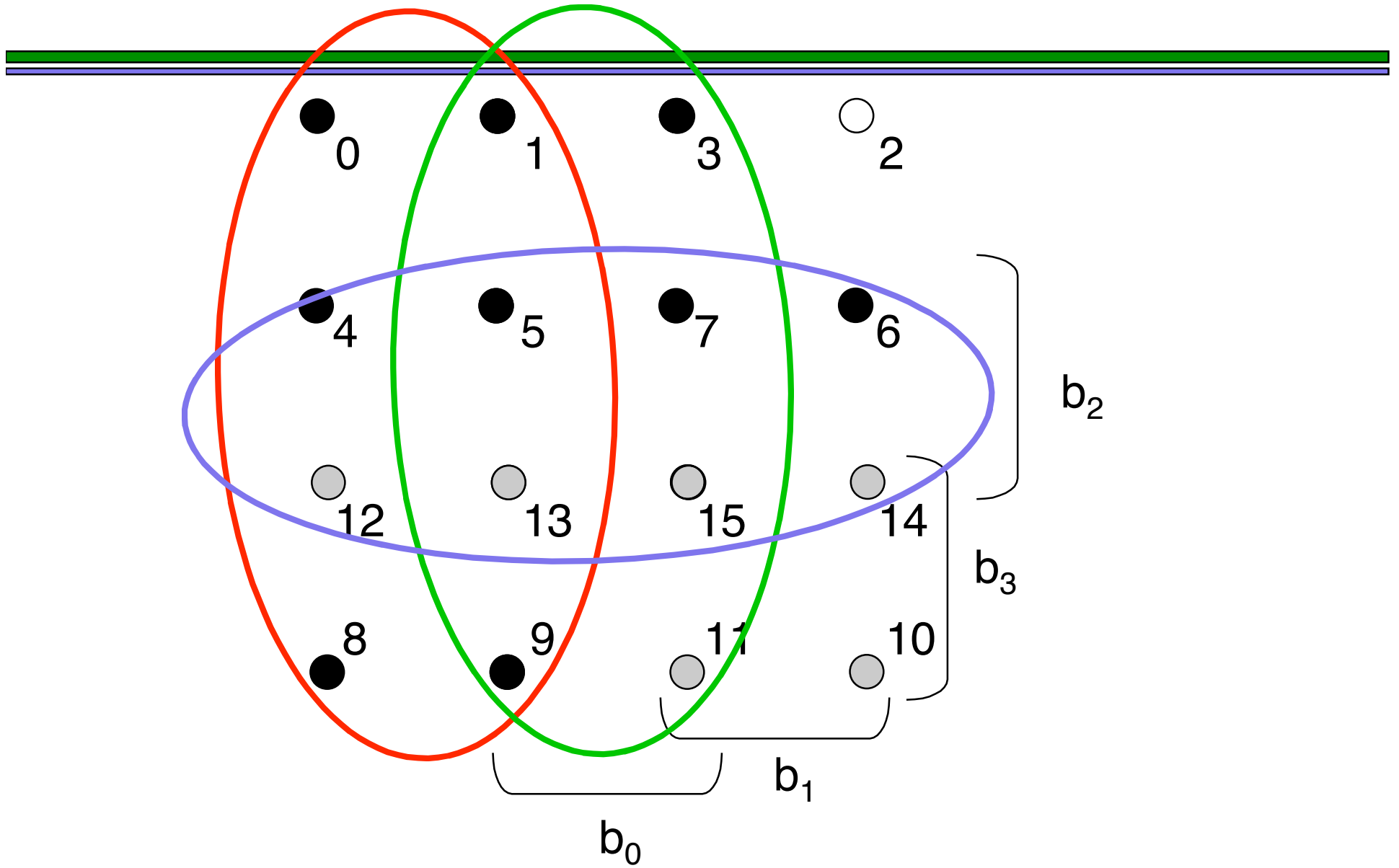
$$s_3 \text{ function} = b_3 + b_2 b_1' + b_1 b_0' + b_2' b_1$$



$$s_4 \text{ function} = b_2' b_0' + b_1 b_0'$$



$$s_5 \text{ function} = b_2 + b_1' + b_0$$



$$s_6 \text{ function} = b_2 b_1' b_0 + b_2' b_1 + b_2' b_0' + b_1 b_0'$$

