GREY CODE

- The gray code belongs to a class of codes called minimum change codes, in which only one bit in the code changes when moving from one code to the next.

- The Gray code is non-weighted code, as the position of bit does not contain any weight.

- This is also called a unit-distance code.

Decimal Number	Binary Code	Gray Code
0	0000	0000
1	0001	0001
2	0010	0011
3	0011	0010
4	0100	0110
5	0101	0111
6	0110	0101
7	0111	0100
8	1000	1100
9	1001	1101

Binary to Gray

- Example: $(a\ b\ c\ d)_2 = (.... ? ....)_{Gray}$

- $(010101)_2$ is converted into $(...?...)_{GREY}$

$(011111)_{GREY}$

Gray to Binary

- Converted: $(p\ q\ r\ s)_{Gray} = (\ldots\ ?\ \ldots)_2$

- Example : $(011111)_{GREY}$ is converted into $(\ldots?\ldots)$

- (010101)