problem -2 → Ecos.

Data: 1010 1100 (m = 8)

Compute check Bits. ($C_4 C_3 C_2 C_1$ → answer
0 1 1 1

Bit pos	12	11	10	9	8	7	6	5	4	3	2	1
pos no	1100	1011	1010	1001	1000	0111	0110	0101	0100	0011	0010	0001
data bit	D_8	D_7	D_6	D_5		D_4	D_3	D_2		D_1	C_2	C_1
Check bit					C_4				C_3			
question	1	0	1	0		1	1	0		0		

$C_1 = D_1 \oplus D_2 \oplus D_4 \oplus D_5 \oplus D_7$

$= 0 \oplus 0 \oplus 1 \oplus 0 \oplus 0$

↓

$C_1 = 1$ (odd parity, make C_1 as 1.

$C_2 = D_1 \oplus D_3 \oplus D_4 \oplus D_6 \oplus D_7$.

$= 0 + 1 \oplus 1 \oplus 1 \oplus 0$.

$C_2 = 3$ (odd parity, make C_2 as 1

$C_3 = D_2 \oplus D_3 \oplus D_4 \oplus D_8$

$= 0 \oplus 1 \oplus 1 \oplus 1$

$C_3 = 3$ (odd parity, make C_3 as 1)

$C_4 = D_5 \oplus D_6 \oplus D_7 \oplus D_8$

$= 0 \oplus 1 \oplus 0 \oplus 1.$

$= 2$

even Parity

so $C_4 = 0$.