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AM7
FA 1.3

1) P = 1101 , W = 11010001

```
          10001111
1101 | 11011001000
       1101
       ----
        1001
        1101
        ----
        1010
        1101
        ----
        1110
        1101
        ----
        0011
```

2) W = 10101011 0 check bits = 4 , odd parity

11	10	9	8	7	6	5	P_4	3	P_2	P_1
1	0	1	0	1	0	1	1	0		

$P_1 = P_{1,3,5,7,9,11} = 0 \mid 11111 = 0$

$P_2 = P_{2,3,6,7,10,11} = 1 \mid 10101 = 1$, should be 0

$P_4 = P_{4,5,6,7} = 0 \mid 101 = 1$ error , should be 1

$P_8 = P_{8,9,10,11} = 0 \mid 101 = 1$ error, should be 1

error = 1010 = 14 = error in bit 14 , the received message maybe in complete

3) e = 11001010
   1 = 11101111

```
 11001010
 11101111
 --------
 10111001
        1
 --------
 10111010 -> sum
 01000101 -> check sum
```

```
 11001010
 11101111
 --------
 10111001
        1
 --------
 10111010
 01000101
 --------
 11111111 -> sum
 00000000 -> no error, accept data
```