Feature1

Normal

0	0.5
1	0.5

Feature2

0	0	0.9
0	1	0.1
1	0	0.1
1	1	0.9

$$FD_{Normal} = 0.5 \mid \log \frac{0.5}{0.5} \mid +0.5 \mid \log \frac{0.5}{0.5} \mid +0.5 \mid \log \frac{0.5}{0.5} \mid +0.5 \mid \log \frac{0.5}{0.5} \mid = 0$$

$$LR(D_{normal}, B, \theta) = 0.5 \log \frac{0.5}{0.5} + 0.5 \log \frac{0.5}{0.5} +$$

$$0.5 \times 0.9 \log \frac{0.9}{0.9} + 0.5 \times 0.1 \log \frac{0.1}{0.1} + 0.5 \times 0.1 \log \frac{0.1}{0.1} + 0.5 \times 0.9 \log \frac{0.9}{0.9} = 0$$

Outlier

0	0.5
1	0.5

0	0	0.5
0	1	0.5
1	0	0.5
1	1	0.5

$$FD_{outlier} = 0.5 \log \mid \frac{0.5}{0.5} \mid +0.5 \log \mid \frac{0.5}{0.5} \mid +0.5 \log \mid \frac{0.5}{0.5} \mid +0.5 \log \mid \frac{0.5}{0.5} \mid = 0$$

$$LR(D_{outlier}, B, \theta) = 0.5 \times \log \frac{0.5}{0.5} + 0.5 \log \frac{0.5}{0.5} +$$

$$0.5 \times 0.9 \log \frac{0.5}{0.9} + 0.5 \times 0.1 \log \frac{0.5}{0.1} + 0.5 \times 0.1 \log \frac{0.5}{0.1} + 0.5 \times 0.9 \log \frac{0.5}{0.9} = -0.17$$