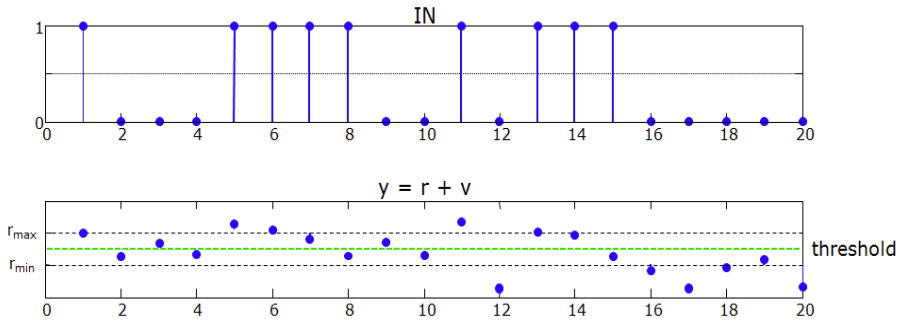
8.2 QUIZ QUESTION 1 (1/1 point)

The figure below shows the transmitted and received signal levels corresponding to 20 bits transmitted over a communication system with **additive noise**.



Assume that bit decisions are made by comparing the received signal level with the threshold shown by the green dashed line.

How many bit errors are made?

Please key in the numerical value of your answer in the box provided below.

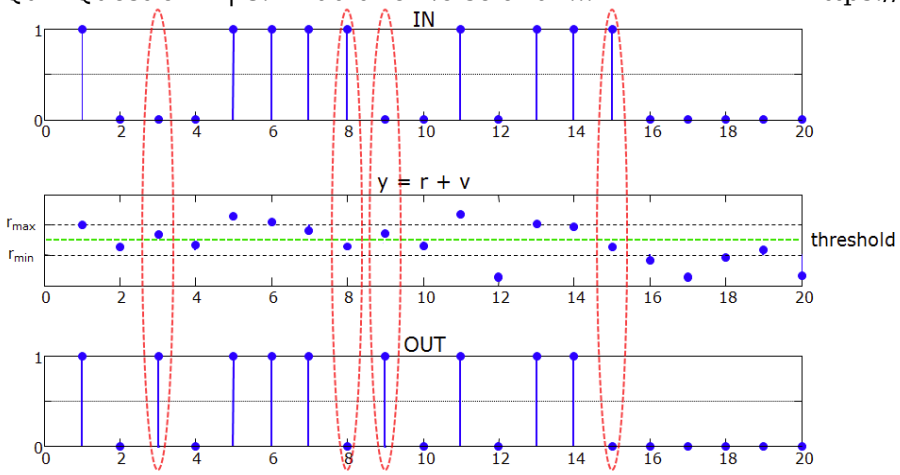
4

4

Answer: 4

EXPLANATION

There would be four bit errors: at indices 3, 8, 9, and 15.



Check | Save | Hide Answer | *You have used 1 of 3 submissions*

8.2 QUIZ QUESTION 2 (1 point possible)

Based on the data shown in Question 1, estimate the bit error rate (BER) of the communication channel. Express the BER as a ratio lying between 0 and 1.

Please key in the numerical value of your answer in the box provided below.

0.1

0.1

Answer: 0.2

EXPLANATION

There are four bit errors in the 20 samples.

$$BER = \frac{4}{20} = 0.2$$

Hide Answer | *You have used 3 of 3 submissions*

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