

[Courseware \(/courses/HKUSTx/ELEC1200.1x/3T2014/courseware\)](/courses/HKUSTx/ELEC1200.1x/3T2014/courseware)

[Course Info \(/courses/HKUSTx/ELEC1200.1x/3T2014/info\)](/courses/HKUSTx/ELEC1200.1x/3T2014/info)

[Course Outline \(/courses/HKUSTx/ELEC1200.1x/3T2014/05fb01b36df14eb99ab54545dabc47f6/\)](/courses/HKUSTx/ELEC1200.1x/3T2014/05fb01b36df14eb99ab54545dabc47f6/)

[Grading Scheme \(/courses/HKUSTx/ELEC1200.1x/3T2014/6e2be4dac3e44b4d9f812e7b5a5d5a29/\)](/courses/HKUSTx/ELEC1200.1x/3T2014/6e2be4dac3e44b4d9f812e7b5a5d5a29/)

[Instructors \(/courses/HKUSTx/ELEC1200.1x/3T2014/674fdd6887fe4f4bb73b984df4a5675b/\)](/courses/HKUSTx/ELEC1200.1x/3T2014/674fdd6887fe4f4bb73b984df4a5675b/)

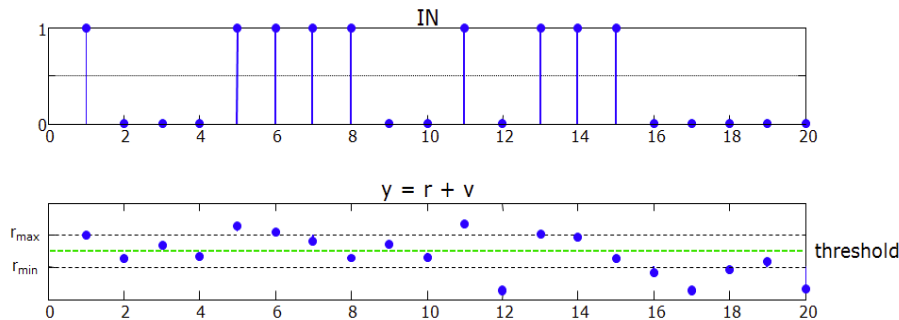
[Resources \(/courses/HKUSTx/ELEC1200.1x/3T2014/a6a8267fef364cccbccd0128d091f11c/\)](/courses/HKUSTx/ELEC1200.1x/3T2014/a6a8267fef364cccbccd0128d091f11c/)

[Discussion \(/courses/HKUSTx/ELEC1200.1x/3T2014/discussion/forum\)](/courses/HKUSTx/ELEC1200.1x/3T2014/discussion/forum)

[Progress \(/courses/HKUSTx/ELEC1200.1x/3T2014/progress\)](/courses/HKUSTx/ELEC1200.1x/3T2014/progress)

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.

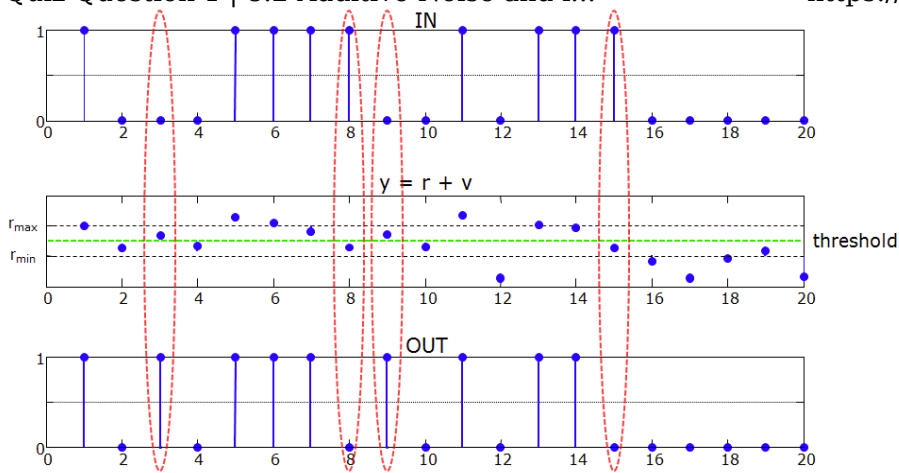
4

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



UTx and many other universities. Topics include biology, business, chemistry, computer science, economics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. EdX is a non-profit online initiative created by founding partners Harvard and MIT.

© 2014 edX, some rights reserved.

Help

Terms of Service and Honor Code (<https://www.edx.org/edx-terms-service>)

Privacy Policy (Revised 4/16/2014) (<https://www.edx.org/edx-privacy-policy>)

/news)


Contact (<https://www.edx.org/contact>)

FAQ (<https://www.edx.org/student-faq>)


edX Blog (<https://www.edx.org/edx-blog>)


Donate to edX (<https://www.edx.org/donate>)

Jobs at edX (<https://www.edx.org/jobs>)

 Facebook (<https://www.facebook.com/EdXOnline>)

 Meetup (<http://www.meetup.com/edX-Global-Community>)

 LinkedIn (<http://www.linkedin.com/company/edx>)

 Google+ (<https://plus.google.com/+edXOnline>)