Show All Solutions

Rosen, Discrete Mathematics and Its Applications, 7th edition
Extra Examples
Section 7.3—Bayes' Theorem

Extra Examples — *Page references correspond to locations of Extra Examples icons in the textbook.*

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p.469, icon at Example 1

#1. It is estimated that a certain disease occurs in 0.1% of the U.S. population. A test that attempts to detect the disease has been developed with the following results: 99.7% of people with the disease test positive for the disease and 0.2% of people without the disease test positive for the disease. (A result that says that a person has the disease when in reality the person does not have the disease is called a "false positive".)

Find the probability that a person actually has the disease, given that the person tests positive for the disease.

See Solution
