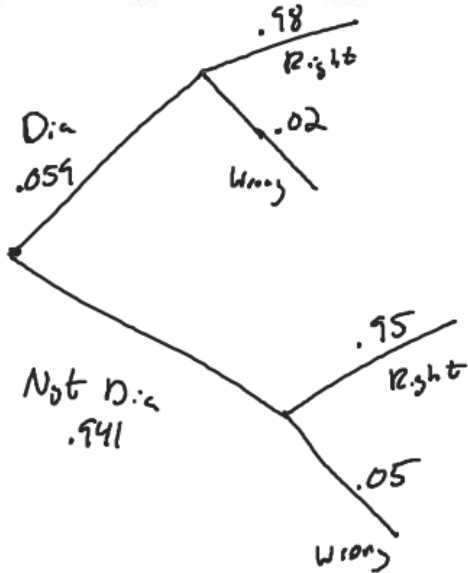


The American Diabetes Association estimates that 5.9% of Americans have diabetes. Suppose that a medical lab has developed a simple diagnostic test for diabetes that is 98% accurate for people who have the disease and 95% accurate for people who do not have it. If the medical lab gives the test to a randomly selected person, what is the probability that the diagnosis is correct?



$$\begin{aligned} & (.059)(.98) + (.941)(.95) \\ & \begin{array}{r} .057 \\ + .89 \\ \hline .947 \end{array} \end{aligned}$$