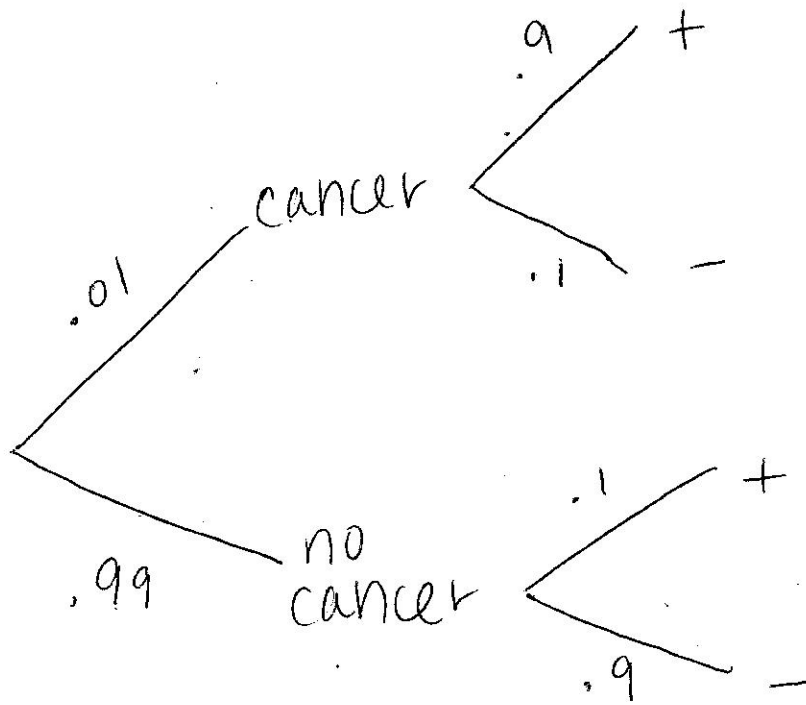


Key

Math 150 Quiz 7

1. Approximately 1% of women aged 40-50 have breast cancer. A woman with breast cancer has a 90% chance of a positive test from a mammogram, while a woman without has a 10% chance of a false positive result. What is the probability a woman has breast cancer given that she just had a positive test?



$$P(\text{cancer} | +) = \frac{.01(.9)}{.01(.9) + .99(.1)} = .083$$