There exists a second diagnostic test that can be used to diagnose the disease mentioned in class. When using this test, 98% of infected people will test positive, as will 1% of non-infected people. Assume that testing positive for this test is independent of testing positive for the test mentioned in class. Suppose we test people who tested positive for the first test.

1. In words, what is the sample space that we are considering?

2. What percentage of the sample space is infected?

3. If someone tests positive for the second test, how likely is it that they are infected?

Recall that after the first test, the population split as:

	Tests Positive under First Test	Tests Negative under First Test
Has Disease	99	1
Healthy	1998	97902

1. How many people are administered the second test?

2. How many of those people will be correctly diagnosed as infected?

3. How many of those people will be incorrectly diagnosed as infected?