

**Question** Consider a disease diagnosis problem, where the joint distribution is shown in the table below:

	Disease (1%)	No Disease (99%)
Test Positive	80%	9.6%
Test Negative	20%	90.4%

That is, among all patients, only 1% have the disease and 99% do not have the disease. Among patients who have the disease, the test reports positive for 80% (true positive) and reports negative for 20% (miss). Among patients who do not have the disease, the test reports positive for 9.6% (false alarm) and reports negative for 90.4% (true negative).

Compute the accuracy of the test -- the probability that a patient has the disease given test report being positive:

**P (Disease | Test Positive) = 0.####** (please retain four digits after the decimal point)

**Answer** 0.0776