**Test You Knowledge**

Norman Fenton and Martin Neil (2010) have published a paper in *Journal of Biomedical Informatics* in 2010. The paper title is “Comparing risks of alternative medical diagnosis using Bayesian arguments” To access the paper click [here](https://reader.elsevier.com/reader/sd/pii/S1532046410000195?token=CF42B0F77D264BF5ECF4DD461308CC708685417AA5BE4E5D935F3B29DBB8AA3C5EDDAF3204C9E38003403DCE143AAC64) if you are interested.

In a classic and much referenced study, the following question was put to 60 students and staff at Harvard Medical School ‘‘One in a thousand people has a prevalence for a particular heart disease. There is a test to detect this disease. The test is 100% accurate for people who have the disease and is 95% accurate for those who don’t (this means that 5% of people who do not have the disease will be wrongly diagnosed as having it). **If a randomly selected person tests positive, what is the probability that the person actually has the disease?**”

The authors found that almost half gave the response 95% and the ‘average’ answer was 56%

**As a student at VT taking Bayesian Class, calculate that probability?**