

Question 38

The table gives diagnoses made by a radiologist reading chest X-rays for TB.

		True state		
		Not diseased	Diseased	Total
Diagnosis	Not diseased	1739	8	1747
	Diseased	51	22	73
Total		1790	30	1820

- (a) Assuming the 1820 X-rays to correspond to a random sample from a whole population, use the data to estimate the proportion of the population with TB. *30/1820*
- (b) Assuming that the X-ray reader's skills are typical, use these data to estimate the probability that an individual identified as a sufferer is in fact healthy. *51/73*
- (c) Estimate the probability that an individual suffering from the disease is incorrectly identified as healthy. *8/22*

[3]

Question 39

If a data set had a Pearson correlation coefficient of -1.0 , what would this tell you about the data?

[2]

perfectly related.