

Poisson distribution – AS Further Mathematics Statistics

1. June/2022/Paper_7366/02S/No.6(a, b)

The number of computers sold per day by a shop can be modelled by the random variable Y where $Y \sim \text{Po}(42)$

(a) State the variance of Y

[1 mark]

(b) One month ago, the shop started selling a new model of computer.

On a randomly chosen day in the last month, the shop sold 53 computers.

Carry out a hypothesis test, at the 5% level of significance, to investigate whether the mean number of computers sold per day has increased in the last month.

[6 marks]
