

1. **Nov/2021/Paper_9709/61/No.2**

The number of enquiries received per day at a customer service desk has a Poisson distribution with mean 45.2. If more than 60 enquiries are received in a day, the customer service desk cannot deal with them all.

Use a suitable approximating distribution to find the probability that, on a randomly chosen day, the customer service desk cannot deal with all the enquiries that are received. [4]

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In a certain large document, typing errors occur at random and at a constant mean rate of 0.2 per page.

- (a) Find the probability that there are fewer than 3 typing errors in 10 randomly chosen pages. [2]

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- (b) Use an approximating distribution to find the probability that there are more than 50 typing errors in 200 randomly chosen pages. [4]

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