

# Exponential Examples

A computer help line receives on average 2 calls every 10 minutes such that  $X \sim \text{Po}(2)$ .

Define the exponential distribution in this situation: \_\_\_\_\_

On average a tool hire firm receives requests to hire out 2 floor sanders a day. The firm has 3 sanders and charges £40 per day such that  $X \sim \text{Po}(2)$ . Define the exponential distribution in this situation: \_\_\_\_\_

A bad stretch of road has, on average, 65 accidents per year such that  $X \sim \text{Po}(65)$ .

Define the exponential distribution in this situation: \_\_\_\_\_

A van hire firm know from their records that the daily demand for vans is 8 per day such that  $X \sim \text{Po}(8)$ .

Define the exponential distribution in this situation: \_\_\_\_\_

A bus company's records show that on average 4 buses a week break down such that  $X \sim \text{Po}(4)$ .

Define the exponential distribution in this situation: \_\_\_\_\_

Electric wire is produced in lengths of 3000 metres. On average there is 1 defect in every 3000 metres of wire produced such that  $X \sim \text{Po}(0.1)$ .

Define the exponential distribution in this situation: \_\_\_\_\_